

# American Aviation

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Voice of  
American Aeronautics

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## Fortnightly Review

### Discernment

IN OUR first anniversary issue we stated that we would tell you something of our policies and plans for the new year.

It is gratifying indeed to feel that AMERICAN AVIATION may have played a national part in the final drive for a better aviation law by providing a new force to hearten those who had fought through discouraging years. We expect to drive on cooperatively with the forces that will build up aviation under the Civil Aeronautics Authority, having no doubt that the problems of aviation expansion and regulation in the public interest will furnish abundant news for constructive presentation by "The Independent Voice of American Aeronautics."

There will be editorials through which we hope to demonstrate the fine art of discernment between what is important and what is irrelevant at any given moment in the big parade of growing aviation.

AMERICAN AVIATION expects to have no monopoly on the discernment of what would be the best policy for personal plane builders, city airport planners, scheduled airline expansionists, transportation economists, but we do expect to present very candidly our studied opinion about these problems and a host of others, and shall follow our own formula for "what is news."

In an effort to serve aviation's public during the past year we have found ourselves repeatedly at variance with an unfortunately preponderant section of the daily press on the definition of "news." For example, we have discovered that the press services, and dailies generally, produce "news" very freely

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## Civil Aeronautics Act Goes to White House for Signing

### U. S. Aviation's Credo

From the Civil Aeronautics Act of 1938  
DECLARATION OF POLICY

*In the exercise and performance of its powers and duties under this Act, the Authority shall consider the following, among other things, as being in the public interest, and in accordance with the public convenience and necessity—*

(a) *The encouragement and development of an air transportation system properly adapted to the present and future needs of the foreign and domestic commerce of the United States, of the Postal Service, and of the national defense;*

(b) *The regulation of air transportation in such manner as to recognize and preserve the inherent advantages of, assure the highest degree of safety in, and foster sound economic conditions in, such transportation, and to improve the relations between, and coordinate transportation by, air carriers;*

(c) *The promotion of adequate, economical, and efficient service by air carriers at reasonable charges, without unjust discriminations, undue preferences or advantages, or unfair or destructive competitive practices;*

(d) *Competition to the extent necessary to assure the sound development of an air-transportation system properly adapted to the needs of the foreign and domestic commerce of the United States, of the Postal Service, and of the national defense;*

(e) *The regulation of air commerce in such manner as to best promote its development and safety; and*

(f) *The encouragement and development of civil aeronautics.*

### PUBLIC RIGHT OF TRANSIT

*There is hereby recognized and declared to exist in behalf of any citizen of the United States a public right of freedom of transit in air commerce through the navigable air space of the United States.*

### House and Senate OK Conference Report for New Aviation Agency; Effective in 60 Days

THE Civil Aeronautics Act designed to create a Civil Aeronautics Authority to centralize in one Federal body all non-military aviation in the United States, passed its last Congressional barrier Monday, June 13, and went to the President for signature.

The House of Representatives adopted the conference report on June 10 and the Senate adopted the report on June 13. The President was expected to sign the bill within a few days. The Act is to become effective 60 days after signing.

Although of historic importance to civil aviation in the United States, the passage of the bill received less attention in the U. S. than the upheaval of the Air Ministry in Great Britain. While the newspapers kept the Bureau of Air Commerce on the front pages for several years, the creation of a new Federal Authority has been virtually ignored.

The bill in final form represented essential features of the original McCarran bill which called for an independent aviation commission, and also of the subsequent bills prepared both by Senator Pat McCarran of Nevada and of Representative Clarence M. Lea of California. Contributing greatly to the final bill were Senator Royal S. Copeland, of New York, who succeeded in ironing out many differences of opinion, and Clinton M. Hester, assistant counsel of the Treasury Department, who acted for the Administration.

The Authority is to be composed of five members at \$12,000 a year salary, plus an Administrator, and a Safety Board of three members, the latter requested by the Air Line Pilots Association. In brief, the Act gives the airlines, the Administration and the airline pilots essentially what they wanted.

By the creation of the Authority, the Civil Aeronautics Act removes from the statute books the Air Mail Act of 1934 and the Air Commerce Act of 1926. The Bureau of Air Commerce is automatically transferred out of the Department of Commerce and is absorbed in the Authority. The Air Mail Bureau of the Interstate Commerce Commission is likewise transferred, and the Post Office Department relinquishes its control of

## C.A.A. Appointments May Be Delayed; Grant Mason Probable Administrator

As this issue went to press it appeared doubtful that appointments to the Civil Aeronautics Authority would be made until July because delay in obtaining Congressional acceptance of the conference report virtually eliminated any hope of having appointees confirmed by the Senate before adjournment.

It had been the White House plan to obtain Senate confirmation in order that appointments could be permanent. Lacking confirmation, however, interim appointments will be made, probably during July, the commissioners to serve subject to confirmation by the Senate next January. The Act becomes effective 60 days after the President signs the measure.

With the announcement of appointments delayed for perhaps a month, observers saw possibilities of changes in the line-up of candidates.

At the same time it became generally known in Washington that the choice for administrator is Grant Mason, Ha-

vana division manager for Pan American Airways and one of the founders of that company. Almost unknown to the aviation fraternity at large, Mason is a relatively young man interested in the development of air transportation. Although he has not yet definitely made up his mind to accept once the position is formally offered to him, his friends predict that he will take the \$12,000 a year job. To do this he must get rid of his large holdings of PAA stock.

Lack of Senate confirmation at the 75th Congress may be a possible barrier to his taking the job, as it is a barrier also to others accepting high posts. Some of the proposed candidates do not want to divest themselves of their financial holding and other economic interests and then run the risk of not receiving confirmation next January.

Two major changes in the line-up of possibilities for commissioners are

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the development of the air transportation system, retaining powers only insofar as air mail is concerned.

The Authority has a large measure of independence, although not as much as such agencies as the Interstate Commerce Commission. The Administrator becomes the key figure in the Authority and has broad powers, subject to the five Authority members.

#### President Given Powers

The President is given wide powers pertaining to air carriers engaging in foreign air transportation. The issuance, denial, transfer, amendment, cancellation, suspension or revocation of certificates to such air carriers is subject to the approval of the President. Copies of applications in respect to such certificates must be submitted to the President before a hearing can be held. This authority was requested because of the increasing importance of foreign air commerce and its relation to international welfare and national defense.

The Civil Aeronautics Authority becomes one of the largest single Federal agencies in Washington. It will probably have between 2,500 and 3,000 employees and is one of the largest permanent government agencies established in the Roosevelt administration. Probably few new employees will be hired during the first year, the immediate purpose of the Act being to consolidate the Federal functions pertaining to civil aeronautics.

What the Act does is to raise civil aviation out of the "bureau" class into a top Federal agency with broad powers. It is a monumental step inasmuch as aviation is only 35 years old and air transportation is only 12 years old. Observers give James Roosevelt, the President's son and secretary, much direct credit for maneuvering the bill to enactment in final form.

#### Complicated Legislation

Few pieces of legislation have been so complicated. Biggest obstacles to harmony were the government agencies themselves—Commerce, Post Office, Treasury, War, Navy, Interstate Commerce Commission, etc.—which for a long time could not agree on procedure. Next came the wide differences of opinion among the airlines which were anything but unified on what they wanted and for the most part naive about how to get legislation. Then came a myriad of disputes on Capitol Hill among Congressional leaders who were far from being in accord and particularly among their advisers behind the scenes.

Biggest immediate benefit will be to the airlines. Under the Act they receive certificates of public convenience and necessity to replace the air mail contracts which were temporary and subject to cancellation at any time. The Act sets up a tribunal for the first time to which the airlines can go for hearings without fearing recrimination from another government agency. With permanent franchises they can also obtain much needed re-financing and there is no doubt that passage of the legislation will eliminate some otherwise inevitable bankruptcies.

The five commissioners will receive \$12,000 annual salary each. The Administrator will also receive \$12,000, and the three members of the Air Safety Board—one of which must be an active airline pilot at time of appointment—will receive \$7,500 yearly each.

The Act authorizes a field survey of airports to be presented to Congress not later than Feb. 1, 1939 and to contain definite recommendations as to Federal participation in the construction, improvement, development, operation or maintenance of a national system of airports.

Existing air carriers are to receive certificates of convenience and necessity

and all new air mail routes advertised to date by the Post Office Dept. are to be protected. These include the three latest routes (Brownsville-Houston-San Antonio, Bismarck-Minot, and Wichita-Pueblo).

#### Appointments

(Continued from page 1)

apparent. Fred D. Fagg, Jr., former director of the Bureau of Air Commerce and now dean of the School of Commerce at Northwestern University, has definitely eliminated himself as a possibility. It is known that he could have had the post had he wished it. Second change is that Norman B. Haley, chief of the air mail bureau of the Interstate Commerce Commission, has risen to top position as a candidate through the intercession of several friends intimate with the Administration.

Other candidates on the top list are Harllee Branch, Second Assistant Postmaster General; Ex-Representative D. C. Dobbins, of Champaign, Ill., who is being pushed by labor; and Clinton M. Hester, assistant general counsel of the Treasury Department, who probably will be chairman of the commission. With Haley as fourth man, there is much speculation over the fifth member of the commission. Only three members can belong to one political party.

Another possibility who ranks very high in White House estimation is Corington Gill, Assistant Administrator of the Works Progress Administration.

There is considerable feeling that a delay in making appointments will see a shift in choices for top jobs, although no other persons than those listed above were in the front ranks as this issue went to press. The one exception is the fifth commissioner, who will more than likely be a Republican. Edward P. Warner is still a possible choice. William A. M. Burden, New York financier who specializes in aviation and is liked exceedingly well by the White House, became a leading candidate recently.

Of some 600 other persons who have either filed applications or who are being pushed by friends, a few stand out as having chances. Steadham Acker, manager of Birmingham Municipal Airport, has considerable Congressional and civic support and his name is known at the White House. Some believe a West Coast man will be appointed to one of the commissionerships, but few would hazard a guess as to who that would be.

For the three-man safety board, Col. Harold E. Hartney; Tom Hardin, American Airlines pilot, and Thomas Bourne, assistant chief of the airways division of the Bureau of Air Commerce, are prominently mentioned and have substantial backing. Col. Hartney was technical adviser of Senator Copeland's safety committee; Mr. Hardin is not only well qualified but is supported by the Air Line Pilots Association, and Mr. Bourne has exceptional qualifications since he was a pioneer in the development of the airways system.

#### Downtown Demonstrations

Plane demonstrations direct from downtown Manhattan has become a reality with the sales plan announced by John Mason, manager of Bennett Air Service, Inc., 41 East 47th Street, New York City.

This company, which handles Piper Cubs, has a ship on Edo floats at the Wall Street ramp, available for immediate flight with prospective purchasers, and is also prepared to demonstrate at the 31st Street ramp, East River, thus saving the time ordinarily spent in going to an outlying airport for a trial flight.

## Refinancing of Airlines First Major Benefit of Legislation, Logan Says

First apparent result of the creation of a Civil Aeronautics Authority will be to enable the air transport industry to



Logan

obtain new financing, in the opinion of A. Martin Logan, National Executive Representative of Transcontinental & Western Air, Inc., who has followed closely every move to obtain the legislation since his appointment to his present post in Washington last June.

"For the first time in history civil aviation has permanent legislation," he said. "No industry can hope to prosper without proper government regulation. Some time ago the air transport industry arrived at the point where additional private capital was needed, but the industry could not hope to obtain this backing without permanent certificates granting them franchises over routes being operated. We were without proper safety regulation and without adequate mail pay."

"In my opinion the Administration was the most important factor in bringing about enactment of the legislation. In James Roosevelt we have a friend in the White House who has been most

patient with an industry that itself never at any one time knew what was needed. Senator Pat McCarran, Representative Clarence Lea and Senator Copeland are all deserving of a tremendous amount of credit."

"As I view the results, the first beneficial effect will be psychological. The industry can begin to breathe easily after facing a series of imminent receiver ships. Next will come financing, and then the Authority will work out route certificates and adequate mail pay."

"The Authority provides the basis for orderly expansion of air mail routes and feeder systems and for safety supervision and regulation. Development of feeder systems will mean new types of aircraft and many more jobs for all."

"Also it must not be forgotten that creation of the Authority paves the way for the time when all overnight first class mail will be carried by air and this means many more airplanes, pilots and a general expansion of air transportation."

"The Authority is by no means designed to be an air transport agency. Other phases of civil aeronautics will not be neglected. The CAA has been set up for all aviation as an industry. Some branches have been negligent in laying their problems before the government but they should begin to awaken to the possibilities for expansion under the new Authority. It is an historic piece of legislation."

#### House Committee Refuses to appropriate for Airship

President Roosevelt's request that \$500,000 be included in the second deficiency bill to begin construction of a \$3,000,000 airship was refused by the House subcommittee of the appropriations committee following testimony by Navy officers that such a dirigible would have little or no military value.

Admiral W. D. Leahy, chief of naval operations, stated that no other country possessed or was building airships for military purposes and admitted that he could see no value in them. Rear Admiral Arthur B. Cook, chief of the bureau of aeronautics, agreed with Admiral Leahy and added that there was no immediate emergency to justify construction of a lighter-than-air ship.

After this testimony, the committee stated that it was not a proper item to be carried in a deficiency bill, and therefore any action would be postponed until the next session of Congress.

#### Draft New Regulation

President Roosevelt in a press conference June 7 threatened to revoke certificates or commissions of airplane pilots or mechanics who participate in revolts against established governments abroad, such as the Spanish conflict and the recent Mexican outbreak. An inter-departmental committee of representatives of the War, Commerce, and Justice Departments is drafting a new Air Commerce regulation to carry out the President's wishes.

#### Old DC-1 Sold

Los Angeles, May 30—The 1933-built Douglas DC-1, which still holds the transcontinental commercial speed record, sailed on a Japanese ship this week for Liverpool, England, authorities said here. The 60-ft. plane, formerly a TWA transport, was piloted from Los Angeles to Newark in 11 hours, 5 minutes by Capt. D. W. Tomlinson in May, 1933. It was the prototype for the present DC-2.

#### Applications for New Routes Pour into BAC

Scores of applications have been made by airlines to the Bureau of Air Commerce for letters of authority to operate over new routes, it has been learned. Bureau officials refused to divulge names of the airlines or the routes, stating that this is done only when a new route is approved for operations.

One route under consideration is from Houston to Memphis via Shreveport, for which application was made by Braniff Airways. The Bureau referred the application to both the Post Office Department and the Interstate Commerce Commission for their direction, however, and it appeared doubtful that permission would be granted because of the imminent creation of the new Civil Aeronautics Authority.

Under the Air Mail Act of 1934, off-line services would only be approved by the P. O. when such service was not in any way competitive with an existing air mail route. With a new Authority being created many airlines hoped to get in under the wire with new routes for which franchises would be granted by the Authority. In view of the reluctance of the various government agencies to complicate the air transport picture for the C.A.A., it is doubtful if any applications will be granted. Only interest of the Bureau of Air Commerce is in safety requirements.

#### INSTRUMENT LANDINGS

##### FCC Asked to Grant Permits for First Two Installations

Applications for permits for construction of two instrument landing systems at Oakland Municipal Airport and at Union Air Terminal, Burbank, have been made by United Air Lines to the Federal Communications Commission.

Meanwhile on June 14 a meeting was to be held in the offices of John Case, manager of Chicago Municipal Airport, for all airline radio officials, who will decide upon locations for installation of a number of other systems.

## Deficiency Bill Authorizes Giant Plane and Seattle-Juneau Air Mail

Weekly Service to North Made Possible in 1939; Coast Guard to Get Two Air Stations, Additional Planes

A second deficiency bill containing several items of outstanding importance to both civil and military aviation was to pass Congress June 14. Earmarking of \$100,000 for inauguration of air mail service between Seattle, Wash., and Juneau, Alaska, and approval of an additional \$1,000,000 for construction of a huge Navy patrol boat, head the list of appropriations.

The \$100,000 for the Seattle-Juneau route will make possible once-a-week service during the fiscal year 1939, but the bill provides for further expansion in 1940 by increasing this amount to \$200,000 for that year. At present it is planned to operate over water in order to keep the route entirely within U. S. territory, thus avoiding the complication of international agreements. The route has long been sought by Senators and Congressmen from the northwest and has been actively pushed by House Delegate Anthony Dimond of Alaska.

E. L. Yuravich, chief of the Bureau of Air Commerce foreign airline inspection section, said that the route should prove very successful. Yuravich, who has traveled over Alaska many times by airplane, believes that much tourist travel will be forthcoming and that mail loads will be heavy.

A total of \$2,000,000, including \$1,000,000 from the 1938 appropriation and \$1,000,000 of deficiency funds, is now available for the Navy's patrol boat which, it is rumored, may be the largest plane ever built. Specifications are being kept secret, but it is said Congress was informed that total cost might reach \$3,000,000 and that the boat might weigh 50 tons. The Boeing 314 ocean transport, now being tested, weighs approximately 41½ tons.

Rear Admiral Arthur B. Cook, chief of the Bureau of Aeronautics, indicated that the boat, which will be armored and will carry a crew of from 10 to 14, will be capable of making a non-stop, round trip flight from San Francisco to Honolulu, a distance of 5,000 miles.

In the deficiency bill, the Navy also received \$518,000 for navigational, photographic, aerological, radio and miscellaneous equipment for the fiscal year 1938, and \$3,375,000 for the same purposes in the fiscal year 1939.

The sum of \$150,000 was transferred from the Post Office's 1939 railroad transportation and mail messenger service appropriation to the star route appropriation. This will enable the department to pay for the transportation of mail over star routes by airplane. The following star routes are now operated by airplane: Port Clinton to Isle Saint George, Ohio; Warroad to Angle Inlet, Minn.; Cascade to Stibnite, Idaho, and Yellow Pine to Wardenhoff, Idaho. A route from Ashton to West Yellowstone, which had been operated by plane, was discontinued in favor of truck service during the past winter. It is not known at this time whether plane service will be resumed over this latter route.

In order to enable the Post Office to make payments to air mail contractors which are necessary by reason of increased rates authorized by the Interstate Commerce Commission, \$78,500 is transferred from the 1936 foreign mail appropriation and \$44,000 from the same fund for 1937. The former sum is divided as follows: Inter-Island Airways, \$11,067; American Airlines, \$40,933, and Braniff Airways, \$26,500. Braniff is also awarded the entire \$44,000 transferred from the 1937 fund. A total of \$6,412.08 is made available from Maritime Commission appropri-

tions for back payments to foreign contractors.

The appropriation of \$363,500 for replacement airplanes and equipment for the Coast Guard, including radio, spare parts and accessories, contained in the 1938 Treasury appropriation, is continued available until June 30, 1939, and \$270,000 under this head in the Treasury's 1939 fund is made available immediately.

For establishing and equipping a Coast Guard air station at the San Francisco airport, 12 miles south of the city, \$600,000 is to remain available until June 30, 1939, and for a station at Elizabeth City, North Carolina, \$540,000 is available until the same date. For additional airplanes for these stations, one-half of the number of each type of planes procured to be assigned to each station, \$654,000 is appropriated.

Other smaller items in the bill include \$1,009.95 for air navigation facilities under the Bureau of Air Commerce, and \$41,712.12 for Navy aviation. Use of this latter money is not specified.

## Claims Bills Would Aid Aircraft Mfrs.

Bills conferring jurisdiction upon the Court of Claims to hear, determine and enter judgment upon the claims of government contractors, whose costs of performance were increased as a result of the National Industrial Recovery Act of June 16, 1933, were reported favorably to each House of Congress recently.

Airplane manufacturers, including Boeing, Douglas and others, who have individual claims bills before Congress, would benefit under the new measure (H. R. 10306 and S. 3628). Only claims already filed, except the few whose costs were increased during the period June 16 to Aug. 10, 1933, will be considered. Many airplane manufacturers lost money on government contracts during the NRA because of increased wage scales.

Senators J. W. Bailey (N. C.) and Schwellenbach (Wash.) were instrumental in getting the bill reported in the Senate, while Representative F. W. Boykin (Ala.) sponsored the House measure. Robert Klepinger, Washington attorney, assisted in drafting the bills.

## ROUND THE WORLD

### Howard Hughes' Lockheed Ready for 7-Stop Trip to Start June 15

The seven-stop round-the-world flight long planned by Howard Hughes was to start from New York on June 15 or shortly thereafter in a specially-outfitted Lockheed 14. A crew of five will be on the ship, with Hughes in direct charge.

First stop is to be Paris with Moscow next. Two stops are planned in Siberia, with the fifth at Fairbanks, Alaska, and a sixth at Edmonton. New York is the terminal and the flight is promoting the New York World's Fair of 1939.

### Copies of Act Available

In succeeding issues AMERICAN AVIATION will endeavor to explain various features of the new Civil Aeronautics Act. It is suggested that those pertinently interested in the industry obtain a copy of the Act for close perusal. Those desiring copies may write to this magazine, Earle Building, Washington, and one will be sent without cost.

## Aviation Calendar

- June 18-19—Intercollegiate Air Meet, Akron, O.
- June 19-2d Annual Santa Ana, Calif., Air Show.
- June 20—Florida Aviation Assn., Annual Meeting, Jacksonville.
- June 25-July 10-9th Annual Soaring Contest, Elmira, N. Y.
- June 28-30—Institute of the Aes. Meeting as part of Summer Meeting of the American Association for the Advancement of Science, Ottawa, Canada.
- July 6-9-11th Annual National Championship Model Airplane Contest, Detroit.
- July 12-Annual State Model Airplane Contest, Florence, S. C.
- July 24-Aug. 2-1st Annual Michigan Light Plane Cruise, from Lansing.
- July 30 (tentative)—Western Canada Annual Air Show, Vancouver, B. C.
- Aug. 27-Sept. 5—American Open Soaring Contest, Soaring Society of America, Frankfort, Mich.
- Sept. 2-3-4—Aero Medical Association Meeting, Dayton, O.
- Sept. 3-5—National Air Races, Cleveland.
- Sept. 11—Gordon Bennett Balloon Race, Liege, Belgium.
- Sept. 12-16—International Congress for Applied Mechanics, M. I. T. and Harvard University, Cambridge, Mass.
- Sept. 16-17—Fifth Northwest Aviation Planning Council, Medford, Ore.
- Oct. 14-16—Annual Meeting, National Association of State Aviation Officials, Omaha, Neb.
- Nov. 14-Dec. 4-16th Annual Aeronautical Show, Paris, France.

## British Engineer Wins '38 Guggenheim Award For Sleeve Valve Engine

New York, June 6—The Daniel Guggenheim Medal for 1938 has been awarded to A. H. R. Fedden, chief engineer of the Bristol Airplane Co., of England, "for contributions to the development of aircraft engine design and for the specific design of the sleeve valve aircraft engine," it was announced today by Major Lester D. Gardner, secretary of the Board of Award. Mr. Fedden is an honorary fellow of the Institute of the Aeronautical Sciences and a fellow of the Royal Aeronautical Society. He will speak before the Society of Automotive Engineers at White Sulphur Springs June 13.

Dr. George W. Lewis, director of research of the National Advisory Committee for Aeronautics, was elected president of the Daniel Guggenheim Medal Fund, Elmer A. Sperry, Jr., was elected vice president, Lester D. Gardner, is secretary, and John H. R. Arms is treasurer.

The Fund is administered by nine directors designated by the American Society of Mechanical Engineers, Society of Automotive Engineers and the Institute of the Aeronautical Sciences. The recipient of the award is chosen by the directors, and foreign representatives from England, France, Germany, Holland, Italy and Japan.

Other recipients have been: 1929, Orville Wright; 1930, Ludwig Prandtl, Germany; 1931, Dr. F. W. Lanchester, England; 1932, Juan de la Cierva, Spain; 1933, Dr. Jerome Clark Hunsaker; 1934, William E. Boeing; 1935, Dr. William Frederick Durand; 1936, Dr. George William Lewis; 1937, Dr. Hugo Eckener, Germany.

## S. C. Brown Honored by Tampa

Sidney C. Brown, NAA governor for Florida, recently was honored as the Tampa citizen who contributed most to aviation development in that city during the past year. Brown is a Florida Republican who has been prominently mentioned as a possible appointee to the new Civil Aeronautics Authority.

## Consair Has 32,000

### Visitors In One Day On 15th Anniversary

San Diego, May 29—Observers estimated that 32,000 persons visited the plant of the Consolidated Aircraft Corp. between 10 a.m. and 4 p.m. today as part of the company's fifteenth anniversary celebration. Special permission of the Navy Department enabled Consair to entertain what is believed to be the greatest number of persons ever to tour an American aircraft factory.

Crowds were so dense at times, officials said, that they stopped the entire line of traffic extending about a mile through the tool room, assembly plant and fabricating shops.

Meanwhile, Maj. R. H. Fleet, president, received a 15-year service pin from Charles Leigh, vice-president. Fleet in turn awarded 10-year service pins to Roy Coykendall, Herbert Ezard, Leo Nidmet and Gladys Thomas; five year pins to Frank Lesslie, Joseph Drozdz, R. F. Webber, Ray J. Tuite, J. E. Nie, H. W. Hinkleley, Albert and Craig Clarke.

In the plant of the Gallaudet Manufacturing Co., at East Greenwich, R. I., in 1922, Major Fleet, general manager, launched his manufacturing career. George Newman was factory superintendent. On May 29, 1923, Consolidated Aircraft Corp. was incorporated and a contract awarded by the Army for 50 two-place tandem trainers made necessary removal to larger quarters in an area with a supply of skilled labor. Buffalo, N. Y., was chosen, and after repeated additions the plant, with 216,048-sq. ft. of floor space devoted to manufacturing, was abandoned Aug. 31, 1935, in favor of the first San Diego factory offering 246,841-sq. ft. Succeeding expansions have brought the total floor space to the present figure of 447,332-sq. ft.

Capital in 1923 was \$25,000. On Dec. 31, 1937, the company announced capitalization of \$1,760,160. Sales in 1924 were \$210,975, and in 1937 totaled \$11,907,493, of which Army contracts represented \$22,423; Navy \$9,670,918 and other classifications \$2,214,152.

## Rockwell Field Near End as Army Depot

San Diego, June 6—One hundred and fifty carloads of machinery, supplies and aircraft equipment valued at \$15,000,000, will begin moving out of the Army Air Corps depot at historic Rockwell Field in September bound for the new army supply base at Sacramento, according to Col. Harry A. Strauss who will be the commandant of the Sacramento depot.

It will be one of the greatest movements ever attempted. In January Rockwell Field will be taken over by the Navy which will then have on North Island the largest naval operating base in the world. Rockwell Field has been the scene of many of the nation's greatest flights.

## NASAO to Omaha Oct. 14

The annual meeting of the National Association of State Aviation Officials will be held in Omaha, Neb., Oct. 14-16, Howard C. Knotts, secretary-treasurer, announced June 9. The program has not been completed. The association has been informed by race officials that the dates will not be in conflict with the St. Louis Air Races. Also during the NASAO meeting dedication ceremonies will be held completing Omaha Municipal Airport's million dollar improvement program.

## MICHIGAN FLYERS PLAN TWO TOURS

Planes of 50-hp. or Less Will Compete for Macfadden Trophies in First Program

Lansing, Mich., June 1—Two state tours will be conducted this year instead of the one which heretofore has marked each flying season, Wayne J. Sheldon, executive secretary of the Michigan Department of the NAA, announced today. The extra schedule is necessary because of the increasing number of sportsmen pilots.

The first cruise will leave Lansing July 24 for a 10-day trip, visiting most of the larger airports and recreational areas, returning here Aug. 2. This first annual Michigan light plane cruise will be primarily for planes of 50-hp. or less. Pilots will compete for two handsome trophies offered by Bernarr Macfadden. Other ships will be allowed to participate but will be ineligible for the trophy competition. There will be no entry fee and free gasoline and oil will be furnished in the lower peninsula by Gulf Refining Co.

The Michigan Air Tour will begin Aug. 20, intended mainly for the sportsmen pilot interested in a vacation trip with fishing and swimming activities. Participants probably will be taken to north state camp which will serve as headquarters. Tourists will be offered flying trips to Michigan's beauty spots, returning each night to the base.

"There are possibly 1,000 light planes in Michigan and the surrounding states, most of them owned by young fellows who are interested in getting in a lot of flying time," Mr. Sheldon said. "The cruise will appeal to these owners, and, at the same time, it will give the airminded citizens of Michigan an opportunity to see a large number of these light planes."

The tour and cruise this year will be sponsored by the state department of the NAA, the state Department of Aeronautics, and the Michigan American Legion. Complete information is available at Capital City Airport, Lansing.

### New Oklahoma City Instructor

Oklahoma City, June 5—Following formation of the Hiram Paul class, student instruction activities at Wiley Post Airport have demanded addition of a new instructor. B. C. Myers, well known throughout Oklahoma, joined the staff May 30. The member of the class in the first group of 50 who shows most promise during his dual hours will be awarded a training ship. For three days Merrill Donley, chief instructor, gave 11 hours of instruction daily.

### Short Hits Page 1

The Tulsa Municipal Airport's hangar de-sparrowizing system received nationwide publicity recently when the press wire services reported the exploits of a Rhesus monkey owned by Charlie Short, the port's manager. The animal, gift of Dr. Roy Fisher, medical examiner for the Bureau of Air Commerce at Frederick, Okla., was located one afternoon sucking sparrow eggs in hangar rafters. "That monkey had torn down every sparrow nest in the building," said Short. "We've found a way at last to get rid of the sparrows and that monkey can have a home the rest of his life." Other methods for dislodging the nests had failed.

## "Lobby to Save Lives"



Nine airline pilots from every part of the nation "stormed" the nation's capital on June 1 in what one Washington newspaper saw fit to describe as a "Lobby to Save Lives." Under the direction of Dave Behncke and Edward Hamilton, president and secretary respectively of the Air Line Pilots Association, the nine men pleaded for passage of the C. A. A. legislation—and also for the creation of a Safety Board. It was probably the most potent little lobby to visit Washington in some time. Left to right, seated, are H. P. Little of UAL; Tom Hardin, American; Ray Elmore, Western Air Express; Cash Chamberlain, Northwest. Standing are Art Mills of Braniff; R. L. Brown, Hanford; James H. Roe, TWA; R. C. Young, EAL, and Ben Catlin, Chicago and Southern.

P. S. The boys got what they wanted.

## 15,000,000 Letters Carried During Air Mail Week; Feeders Surprise

Approximately 15,000,000 air mail letters and 30,000 air mail parcels, netting the Post Office over \$1,000,000 in postage revenue, were carried in the United States during National Air Mail Week, May 15-21, according to statistics released by Charles P. Graddick, superintendent of air mail.

With Idaho and Indiana yet to report, the number of letters carried totaled 14,739,753, and 32 states report 23,352 parcels. As a result, Graddick does not believe the above estimated totals to be too high.

The feeder route results surpassed the P.O.'s fondest expectations. With Indiana, New Mexico and Hawaii unreported, 1,629 pilots carried the mail on May 19, so that the final total of routes operated is almost certain to reach the 1,700 mark. Total miles flown over these routes will probably be slightly over 140,000, when returns from Texas, South Carolina and Hawaii are reported. Without these, the figure was 134,350 miles, which is 399 more than the 133,951 miles recorded during the entire first year of the air mail system. Feeder route planes, which operated without a single fatality or injury, made 3,025 stops.

California led the states in the number of air mail letters mailed during the week, showing a total of approximately 4,500,000, together with 3,200 parcels. The best feeder route mileage was the 10,844 reported by Illinois, while Pennsylvania's 196 pilots and New York's 386 feeder stops were first in those respective fields.

More than 40 women, two postmasters, one rural mail carrier, one priest, one substitute mail clerk and numerous doctors were among the pilots on May 19. Graddick stated. Mrs. Elmer H. Harwood, a "flying grand-

mother," operated a route in New York State, while R. G. Howard, a "flying grandfather," flew the mail from Du-Bois, Penna., to Pittsburgh.

Among the more novel items transported by air mail during the week was a newly-laid ostrich egg, sent from the postmaster at Buttonwillow, Calif., to the postmaster at Bakersfield, Calif. Other parcels included crates of oranges, grape fruit, Idaho potatoes, ice cream and mineral water.

The town of Gardner, Kansas, with a population of 400, produced six air mail letters per person during the week. The governor of Virginia entered into the spirit of the celebration by sending an air mail letter to each of the other 47 state executives. Montana citizens operated a pony express service between Livingston and Billings, 118 miles in 11 hrs., 50 min., and a plane was then flown over the same route in 40 min.

Referring again to the \$1,000,000 postage revenue netted by the P.O. during the week, Graddick pointed out that this figure represented the monthly average during 1937, when the year's total was \$12,439,519.24. If this feeder service could be established on a permanent basis, he said, P.O. revenues might jump to as high as \$50,000,000 a year.

### Aerial Navigation Course

Toronto, June 7—The University of Toronto announced today establishment Oct. 1 of a two year diploma course in aerial navigation, for which honor students only will be eligible. Applicants must be British subjects and qualify under physical standards set by the Canadian government. Before beginning the second year, the student must have received his private pilot's certificate.

## GILPIN LINE BUYS OUT GRAND CANYON

Douglas Announces Purchase of G. E. Ruckstell's Air Services Which Started 10 Years Ago

Tucson, Ariz., June 1—Grand Canyon Airlines, founded 10 years ago by G. E. Ruckstell and operated by him since then, has become a division of Gilpin Airlines of Tucson, according to announcement by Walter Douglas, Jr., president of Gilpin. The deal involved not only the purchase of all equipment, but also of the Grand Canyon Airlines operating franchise in the national park area.

Three members of the traffic department of GCA will be retained. Loyal Penn, Phoenix pilot, and Johnny Milner, Tucson, will also join the crew of pilots at the canyon. Scenic flights will be operated from both the north and south rims. The company operates its own taxi service between El Tovar on the south rim to the Grand Canyon Airport, 13 miles south of the rim.

Airports will also be operated at Petrified Forest, Painted Desert, Death Valley, Zion National Park and Bryce National Park. During the winter season operations will be moved to Boulder City Airport. General headquarters will be maintained at Tucson. Heinz Wegner, general manager for Gilpin Airlines, is at Grand Canyon reorganizing the system.

Starting in 1936 and continuing for over a year, Ruckstell's line was operating scheduled service between Boulder City and Grand Canyon using trimotored Fords. Early this year he sold these to TACA airlines in Central America, retaining only smaller ships for scenic and charter ships. Ruckstell pioneered air services in the Grand Canyon area and is now residing in Los Angeles. He holds recreation concessions for the Boulder Dam national park area.

### ALASKA PROMOTION

Mile-Long Runways Is One Feature of New Northland Program

The Army, the Navy and the Department of Commerce are drawing up a uniform program for the development of air defenses in Alaska, according to reliable information, with one of the goals being the construction of a large number of airports not one of which is to be less than a mile in length.

Immediate plans have been perfected for establishment of three separate runways on the Anchorage and Fairbanks fields of a mile and a half, a mile, and 4500-ft. respectively. The ultimate aim is to have 166 airports in the Territory.

### Complete Record Flight

The American Museum of Natural History aerial expedition of Richard Archbold and five companions, including Lewis A. Yancey, pioneer trans-Atlantic flyer, landed at Hollandia, New Guinea, June 10 in their 14 ton trimotored \$250,000 Consolidated craft, "Guba," after a 7,224 mile flight from San Diego, which began June 2. Only three hops were made, with stops at Honolulu and Wake Island. The plane will be based at Hollandia for two years while Archbold and his fellow flyers, and other scientists already on the scene, explore the jungle area of the region for the next two years. The San Diego-Honolulu flight (2624 miles) was made in 18 hours, 9 minutes; the Honolulu-Wake hop (2300 miles) in 16 hours, 45 minutes; the last jump (2300 miles) in 15 hours, 7 minutes. The plane was the first to make a nonstop flight from Honolulu to Wake (Pan Am clippers stop at Midway) and the first to fly from Honolulu or Wake to New Guinea.

# BAC Pledges Cooperation with Mfrs.

## Recommendations for CAR Changes, Drawn Up by 33 Firms, Presented to Bureau Authorities at Two-Day Government-Industry Harmony Conference

**I**MPORTANT recommendations of policy along with 26 pages of proposed changes in the Civil Air Regulations were presented to the Bureau of Air Commerce at a conference on May 26 by 33 aircraft manufacturers and members of the aviation industry. The suggested revisions were presented through the engineering committee of the Aeronautical Chamber of Commerce, but both members and non-members of the Chamber participated in their formulation at a two-day session held previous to the meeting with the BAC.

Denis Mulligan, director of the BAC, opened the meeting by stating that the Bureau would attempt to cooperate with the industry in every possible way. The conference was then turned over to Lawrence Kerber, chief of the BAC aircraft airworthiness section. W. C. Clayton, of the Aero. C. of C., spoke for the industry.

The proposed changes dealt mostly with Chapter 04 of the CAR, which contains the airworthiness requirements, and with certain forms and memoranda, which the meeting felt imposed unnecessary hardships upon the industry.

Probably the most important recommendation of policy which, if put into effect, would greatly simplify the regulations, read as follows: "Only those regulations which are necessary to protect the public safety should be formulated. All existing regulations should be reviewed in this light. Matters not affecting the public safety should be left in the hands of the industry." Many regulations which deal with such items as to which side of the plane the door should be on, interior arrangement, etc., are entirely superfluous, the manufacturers feel, and have nothing to do with safety.

### Other Recommendations

Other important recommendations ask for the following:

A standing joint committee having equal representation from the Bureau and from the industry should be created for the purpose of formulating all permanent regulations.

All emergency regulations made by the Bureau should be considered to be temporary, and should be reviewed by this standing joint committee before becoming permanent regulations.

All matters connected with type approvals, including structural and flight tests, should be consolidated in the aircraft airworthiness section.

Provision should be made within the Bureau for appeal from rulings when the manufacturer is not satisfied with the rulings.

In connection with the recommendation for appeal from rulings, it is learned that the industry favors the establishment of a board of review within the Bureau. Although appeal is now possible, such appeals are referred back to the section which originally wrote the regulation. The industry does not feel that this is fair and wants the board of review to be entirely separate from the sections writing the regulations.

### No Warning

It is also known that emergency regulations have long rankled the industry inasmuch as they may appear as permanent rules at any time without warning. Often it is felt that such rules do not have a wide enough scope to war-

rant permanency. The industry believes that a record of reasons for all regulations should be made available.

After presentation of the proposed amendments to Chapter 04, most of which aimed at clarification and simplification, the manufacturers frankly criticized the various forms and memoranda used by the Bureau. In connection with form 501, comment and recommendation was made as follows:

"The principal use of this form is to enable the Bureau to recall an airplane to the factory for further inspection in cases where the engineering inspector has not obtained all of the data which should have been obtained. . . . To recall an airplane for further tests after the furnishings are completely installed works an undue hardship on the manufacturer. In addition, this form acts as a considerable source of sales resistance and in cases where it is necessary to return the airplane there is always a problem as to who should pay for the return to the factory."

"It is felt that the necessity of this form could and should be eliminated, by the Bureau placing responsibility on those in the field for obtaining complete results during type tests. . . . In view of the great complexity of the problem confronting engineering inspectors, it is recommended that the work which the engineering inspectors are now being called upon to perform be divided into two categories, namely, 'flight inspection' and 'structural inspection'. . . . It would also be highly desirable if the Bureau could institute a systematic training of all engineering inspectors so as to systematize and unify the procedure to be followed by all engineering inspectors."

### Test Pilot Rating Unjust

The ruling which requires a test pilot to have a rating in order to get an aircraft approved and to use an approved aircraft in order to get a rating, is unjust, the manufacturers state, particularly with regard to large-sized planes. It is therefore recommended that such ratings not be required of test pilots not flying pay passengers who demonstrate their ability to fly the types of airplanes in question.

"It is understood," the recommendations stated, "that the Bureau recognizes this situation with regard to its own engineering inspectors in that they are not required to have the various ratings in order to flight test airplanes in question for type certificates. . . . It is felt that the inspector should do such flying from the co-pilot's seat and that the company's test pilot should at all times occupy the pilot's seat and that the company's pilot should also make all take-offs and landings. It is felt that the above is necessary because of the fact that the Bureau's engineering inspectors cannot be expected to be as familiar with the airplane in question as the company's test pilot."

Kerber, speaking for the Bureau, stated that a meeting should be held with the industry each year in May, and that, upon request, the Bureau would meet with the Aeronautical Chamber or individual manufacturers at any time. He did not express an opinion on the recommended policy and amendments, but stated that they would be given careful consideration. The BAC, he said, intended to issue the following types of new or revised regulations at any time, to be effective immediately: those necessary to reduce hazards to flights; those resulting in a lowering of a previous minimum standard, and those necessary for purposes of clarification, rearrangement of text, etc., but not involving any increase in the severity of a previous minimum standard. Proposed new or revised regulations which involve raising a previous mini-

mum standard or introducing a new minimum standard will be circulated to the industry for comment before adoption, he said.

Following is a list of those present at the conference: Leighton W. Rogers, Charles E. Parker and W. C. Clayton, Aeronautical Chamber of Commerce; A. Francis Arcler, Waco Aircraft Co.; John K. Ball, Boeing Aircraft Co.; Roland C. Bergh, Seversky Aircraft Corp.; Raymond Carlson, Taylor-Young Airplane Co.; Renato Contini, E. G. Budd Manufacturing Corp.; Lloyd Engelhardt, Curtiss-Wright Corp.; A. C. Falk, Kellett Autogiro Corp.; Charles Froesch, Eastern Air Lines; J. M. Gwinn, Jr., Gwinn Aircraft Co.; W. C. Jamouneau, Piper Aircraft Corp.; F. J. Knack, Luscombe Airplane Corp.; B. V. Korvin-Kroukovsky, Edo Aircraft Corp.; Jerome Lederer, Aero Insurance Underwriters; F. B. Levy, Engineering & Research Corp.; L. C. McCarty, Jr., Glenn L. Martin Co.; L. J. Marhofer, consulting engineer; R. W. Middlewood, Stinson Aircraft Corp.; A. W. Mooney, Dart Manufacturing Corp.; J. P. Perry, Pitcairn Autogiro Corp.; S. S. Shannon, Eastern Air Lines; Mac Short, Lockheed Aircraft Corp.; Paul H. Stanley, Pitcairn Autogiro Corp.; W. L. Sutton, Fleetwings, Inc.; C. G. Taylor, Taylor-Young Airplane Co.; A. J. Thieblot, Fairchild Aviation Corp.; D. W. Tomlinson, TWA; C. R. Tuttle, Glenn L. Martin Co.; James A. Weagle, Aeronautical Corporation of America; Fred E. Welch, Engineering & Research Corp.; and H. E. Wehmler, Consolidated Aircraft Corp.

The Bureau was represented by Denis Mulligan, L. V. Kerber, R. S. Boutelle, Al Koch, Jack Gray, J. E. Bondwin, Charles F. Dyer, E. I. Ryder and John F. Warlick.

## Board Asks Rehiring Of Penn Central Pilot

A four-man board, consisting of two Air Line Pilots' Association representatives and two representing Pennsylvania Central Airlines, last month ordered the company to reinstate Pilot Edward Couples, dismissed six months ago. Significance is attached to the action because it was the first time the union and a carrier had settled their differences through appointment of an adjustment board.

Couples had been with the company nine years, had flown 800,000 miles and was second on the seniority list. The ALPA protested his dismissal, and conferences were held in Washington and Pittsburgh, the National Mediation

Board acting as mediator, as provided in the Railway Labor Act.

Following conferences, the following board was appointed: for the pilots, former Congressman Donald C. Robbins of Illinois, and C. W. Weiblen, PCA pilot; for the carrier, Col. Harold Hartney, Senate aviation adviser, and James L. Adler, a director of PCA.

The board decided that Couples was to be reinstated with base pay for the full period. He is to be employed first in the company's flight control office for 30-90 days; as a co-pilot for 30-90 days, and then will be restored as first pilot with full seniority if a board of two company pilots, including the chief pilot, decides his work has been satisfactory.

David L. Behncke, president of the Air Line Pilots' Association, said that a number of other cases will be acted upon shortly.

## Test Wood Amphibian

New York, June 5—A two-place, wood cabin amphibian craft with a hull contained Menasco C-4, built after a year's development by Spencer-Larsen Aircraft Corp., Farmingdale, L. I., for the private flyer is being flight-tested this week. The SL-12C has a wingspan of 40-ft., an overall length of 26-ft. 1 1/4-in., and its motor develops 125-hp. at 2175-rpm., according to P. H. Spencer, president of the company. The propeller, located behind the wing, is driven through a gear transmission system of two vertical shafts, with a flexible spline drive between the motor and transmission, which is said to eliminate loads (except normal driving torque) on the engine crankshaft. Large wing area and flaps reduce landing speed.

## Hicks Replaces McKiernan

Capt. Ronald A. Hicks of the Army Air Corps has replaced Maj. William J. McKiernan as executive assistant to Col. W. Sumpter Smith, principal aeronautical engineer of the Works Progress Administration, Walker-Johnson Building, Washington, D. C. Major McKiernan was in Walter Reed Hospital for several months because of a serious illness and is now at the Mayo Clinic in Rochester, Minn.



*Fly* the shortest, fastest route coast-to-coast  
... Get there quicker...  
Enjoy deluxe service  
—by TWA.



## THE LINDBERGH LINE



## Birmingham Air Carnival Draws 200,000



Birmingham Municipal Airport showing a small part—a very small part—of the huge crowds which witnessed the 8th annual National Air Carnival June 4-5. The show this year was one of the largest air events ever held in this country.



Contestants for the title of "Miss American Aviation" are draped on the tri-motored Italian plane owned by Col. Vincenzo Coppola, air attache of the Italian Embassy in Washington. Top center is Mrs. John S. Wynne, wife of the Washington attorney, who reigned as queen until the winner was chosen.



Above is Miss Dorothy Quackenbush, representing TWA, who received the title of "Miss American Aviation for 1938." Not a hostess herself, she poses for TWA's hostess photographs and works as a clerk at the Kansas City base.



Above at top is Miss Quackenbush shaking hands with Capt. Manuel Orta, chief instructor of the Cuban Air Force, who provided acrobatics for the show and proved popular as a first-rate air show attraction.

Below are some of the contestants for the title of "Miss American Aviation." Seated in the 1910 pusher is Miss Quackenbush, wearing her crown. From left to right are: Misses Zoe Dell Lantis, San Francisco "pirate girl," representing Delta Airlines; Gloria Levinge, "Miss Birmingham;" Marion Hill, "Miss Chicago and Southern Air Lines;" Dorothy Quackenbush; Irene Martinez, "Miss Braniff Airways;" Dorothy Ayres, "Miss Tayloraer;" Nancy Jackson, "Miss Aeronca;" and Audry Tammany, "Miss Colorado."



Steadham Acker, manager of Birmingham's airport and promoter of the annual air carnival. No admission to the public is charged and no tax money is used for expenses. This year the carnival attracted many national aviation figures and moved into the "big time" class.

### South's Show A Smash Hit

Birmingham, Ala., June 6—This city's 8th national air carnival came to a close yesterday after providing some 200,000 persons with a free two-day air show that has unquestionably moved Birmingham's annual event into the big-time class. The affair was under the direct supervision of Steadham Acker, airport manager, with the generous aid of city and civic officials, the newspapers and the radio. No admission charge was made to the public.

Not a single accident of any consequence marred the two days of crowded events.

With a first class show that included no racing events except one for stock model Aerona's, all events went off smoothly. There were more social affairs in the city for local and visiting aviation leaders than have ever been held at one time before. Starting on Thursday evening, one event followed another through Sunday night.

### TWA Candidate Wins Title

One of the major events was the choosing of "Miss American Aviation for 1938." The winner was Miss Dorothy Quackenbush, entered as "Miss TWA" and chaperoned by John B. Walker, vice-president in charge of traffic. A clerk at the Kansas City base, she models for all of TWA's hostess photographs.

Judges were Charles F. Horner, president of the National Aeronautic Association, chairman; Casey Jones, president of the Casey Jones School of Aeronautics; Cammy Vinet, chief of the division of aeronautics, State of Pennsylvania; Leslie Neville, news editor of Aviation; and Wayne W. Parrish, editor of AMERICAN AVIATION. Honorary judges were Brig. Gen. H. C. Pratt, Commandant of Maxwell Field, and Col. Vincenzo Coppola, air attache of the Italian embassy, Washington.

## POLES NEAR PORT ORDERED REMOVED

### Union Air Terminal Wins First Scrimmage in Suit Against Property Owners

Los Angeles, June 2—An important suit involving the property rights of air over privately-owned land adjacent to an airport brought a temporary victory to the complainant, United Airport Company, when Federal Judge Paul J. McCormick ordered poles erected on property adjacent to Union Air Terminal removed before he would continue the case.

The complaint was filed by Dudley M. Steele, president of the airport corporation on May 28. It charged F. I. Hinman, Nannie Hinman and four John Does, alleged owners of the adjacent property, with "maliciously erecting" numerous 2x4 twenty-foot poles impeding the landing of airplanes. Judge McCormick refused at that time to issue a restraining order, although he permitted airport officials to paint and light the poles pending the suit.

Yesterday, however, Judge McCormick ordered the poles removed at once. "There is every reason why this case should be tried immediately, because of the hazard to air travel," he said, "and the only ground on which I will continue the case is immediate removal of the obstructing poles."

The complaint charged that the property owners erected the poles after the terminal refused to buy the property at \$5,000 an acre—a sum reportedly far in excess of that asked by other owners in that area.

### Zoning

Los Angeles—The city attorney here has drafted an ordinance aimed at preventing erection of obstructions near Municipal Airport. It would limit height of buildings and other structures within half a mile of the airport to 50-ft. Buildings erected beyond the half-mile limit and within a mile radius would be limited to 75-ft. Col. R. E. Barnitz, airport director, requested passage of the regulation.

Modesto, Calif.—An ordinance regulating height of obstructions near Municipal Airport has been passed by the County Board here. Obstructions are regulated as follows: Minimum of 3-ft. at boundaries plus an additional 5/100-ft. for each foot of distance from the outer boundary to the obstruction, up to a line 500-ft. beyond the boundary, and an additional 7/100-ft. for each additional foot of such distance over 500-ft. Violation will be punishable by a fine not exceeding \$500, or by imprisonment for not more than 6 months, or by both fine and imprisonment. Each day's continuation of a violation of any provision will be considered a separate offense.

## KOLLSMAN

### KOLLSMAN ACCELEROMETER

The Kollsman Accelerometer has proved itself a valuable aid to the airline maintenance crews. The maximum force imposed on an airplane is recorded by this instrument during each flight. For every type of ship it is found that the amount and nature of service needed is accurately related to these maximum force indications.

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## Riverside Loses Its Airport in Decision

Riverside, Calif., May 26—The city of Riverside was deprived of its airport yesterday in a decision handed down by the fourth district court of appeal which affirmed the judgment of the lower court of that county. Superior Judge Charles C. Haines, sitting as justice pro tem, handed down the decision.

Litigation hinged around 80 acres leased to the city by W. C. Evans and wife, and a Riverside bank, for use as an airport. The lease provided the city could sublease, but not without consent of the lessors. A sublease was given to Roman Warren, one of the defendants in the action, who in turn subleased to Kenneth R. Brooks.

After the original lease had been executed, Mr. and Mrs. Oscar Crowell became owners of 40 acres of the airport and took possession, on the ground that the sublease from Warren to Brooks had violated terms of the lease, and therefore had terminated it. The trial court upheld this contention. Judge Haines held that the provision against subleasing did not refer to Warren, but to any future sublessee, and that the covenant was broken when Warren subleased to Brooks.

### ILLINOIS BILLS PASS

#### Legislature Okays Provisions Which Will Speed Chicago Airport's Enlargement

Springfield, Ill., June 2—A bill passed the state house of representatives today, 104 to 0, which will enable the city of Chicago to draft an ordinance permitting condemnation of land adjacent to its Municipal Airport. Cost of enlarging the field will be about \$800,000 and the project is expected to be completed early next winter. A similar bill passed the senate last week.

Briefly, the two bills allow:

1. Authorization to municipalities to acquire property rights for airport purposes by condemnation or other means, and to contract with persons or corporations for the removal of structures and equipment interfering with airport development.

2. Empowering railroads to relocate their facilities on land, and to acquire property for this purpose, to make for airport improvements.

George Roberts, secretary of the Illinois Aeronautics Commission, predicted today that his group will give its approval, and Gov. Henry Horner is expected to sign both bills at once. Work will start in less than six months on removal of railroad tracks bisecting the square mile of airport land.

### New Inspector to Conair

San Diego, Cal., June 2—Lieutenant-Commander Roland G. Mayer, now on duty at the Naval Aircraft factory at Philadelphia Navy Yard, has been ordered to duty as aircraft inspector at Consolidated Aircraft Corp. plant, according to word received here. Present inspector is Lieutenant Henry P. McRoberts, who assumed duty on the death several weeks ago of Lieutenant Commander Emile Chourre.

### More Pay For American

On May 19, it has just been announced, the Post Office increased American Airlines' mail pay trip 5 westbound, and 6 eastbound, between Chicago and New York, from daily except Saturdays to daily. On the same date the company was granted a second mail pay trip between Albany and Buffalo.

## ICC Decision Shows Airlines are No Longer 'Subsidized' by P. O.

Division 3 of the Interstate Commerce Commission on June 2 upheld the findings of Examiner Louis R. Inwood in Air Mail Docket 19, held in compliance with the Air Mail Act of 1934, which requires the I.C.C. to fix and establish rates "designed to keep the aggregate cost of the transportation of air mail on and after July 1, 1938, within the anticipated postal revenues therefrom."

Examiner Inwood in his proposed report (AMERICAN AVIATION, Apr. 15) stated that revenues "may reasonably be ascertained by projecting at the same rate of progression the revenues for preceding years ascertained through the cost ascertainment system and by giving due weight to a like projection of pound-miles of air mail service during the preceding years; that for the fiscal year beginning July 1, 1938, it appears that the anticipated postal revenue from air mail so ascertained will be substantially in excess of the aggregate cost of transportation of air mail by airplane and the services performed by the carriers in connection therewith."

The Post Office filed numerous objections to the proposed report. It particularly objected to a statement made by its own witness, Charles P. Graddick, superintendent of air mail, to the effect that, according to pound-mile figures, the air mail would grow 11% and 30% in 1938 and 1939, respectively. Cost ascertainment approximations had set these percentages at 10.3 and 7.5. However, the Commission decided that pound-mile data would be considered because in the past it has borne close relation to revenues.

Calling that leveling off of service foreseen in the cost ascertainment estimates for 1939 "contrary to past experience," Examiner Inwood projected at the same average growth the revenues and expenses for 1935, 1936 and 1937, and found that for the fiscal year 1939, these figures would be approximately \$17,500,000 and \$14,800,000, respectively. Cost ascertainment revenue and expense estimates for 1939 were \$13,725,000 and \$15,800,000.

In view of the legislation establishing an independent aviation commission, the decision is of little or no importance, except as an historical document. It may be used by the airlines to prove that they are no longer in the subsidized class, it is said.

## BAC Men Learn About Four-Motor Aircraft

In order to give its personnel actual experience in piloting four-engine equipment, soon to appear on the airlines, the certificate and inspection division of the Bureau of Air Commerce is sending its airline, maintenance and engineering inspectors to Langley Field, Va., where they are taking a 15-day course in operating the Army's B-17 "Flying Fortresses." In addition, the BAC will send approximately 32 inspectors to Kelly Field, Tex., for training with Army B-18 bi-motored planes.

Engineering and airline inspectors at Langley are receiving actual flight experience with the B-17's, while the maintenance men are being given mechanical instruction. The Kelly Field classes consist of inspectors who have had little or no experience with bi-motored equipment.

The Bureau feels that the course will better enable the inspectors to cope with problems that may arise in connection with the Boeing 307's and 314's, and the Douglas DC-4's, which will be put into operation by commercial lines.

The following inspectors have al-

ready completed training at Langley: engineering, L. J. Holoubek, I. K. McWilliams, Joseph Bowdin and A. M. Alcorn; maintenance, C. B. Reed, George Lossow, J. R. Herron, H. B. Taylor and O. L. Wallace; airline, R. W. Delaney and Ben Griffin. Four or five more will probably take the course.

### New Pitch Prop Patent

The Patent Office in Washington has granted three patents to Nicholas E. Groeneveld Meijer of Schenectady, N. Y., for a new type variable pitch propeller. Heat from a coil causes metallic cylinders telescoped within one another to expand. The cylinders, being alternate sleeves of brass and nickel steel, are mounted in the hub of the propeller. Some sleeves are connected to the pitch-changing mechanism, which includes an adjusting disk and levers. The heating coil surrounds the cylinder stack. When the heat is applied, expansion of the cylinders operates the pitch-controlling mechanism to adjust the blades. Cooling is accomplished by means of a fluid, causing cylinder contraction. The experiments were made in the General Electric laboratories.

### KLM West Indies Growth

KLM route mileage in the West Indies has increased from 43.4 miles to 930 miles in two years, the company reports. Passengers carried in the area totaled 400 in 1935, 600 in 1936, and about 750 in April alone, of this year.



## Announces faster, finer summer service

- Faster coast-to-coast, by 1 to 1½ hours! United now offers three de luxe Mainliner Sleeper flights nightly, and a daylight flight, over the scenic Main Line Airway.
- New York-Chicago travel time in United's Mainliners now cut to only 3 hrs., 59 min. eastbound, 4 hrs., 45 min. westbound. Ten fast flights daily each way.
- A superb new Pacific Coast service saves days of travel time between California and Pacific Northwest cities. Evening flights, both northbound and southbound, link Los Angeles to Seattle in just 7 hours! Two other fast flights border-to-border daily.

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## UNITED AIR LINES

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## WESTERN AVIATION CONFERENCE SPLIT

**Northwest and Southwest Groups Made  
Distinct; Reject Idea of N. A. A.  
Sponsorship**

Salt Lake City, June 4—Aviation representatives of 11 western states took decisive action here today by dissolving the Western Aviation Planning Conference and retaining the Northwest Aviation Planning Council as a distinct entity. At the same time the delegates formed a Southwest Aviation Planning Council and definitely turned down efforts to link the conferences with the National Aeronautic Association.

Ever since the Western Conference at Sacramento last September, the Northwest Council, established several years ago, has protested its being swallowed up by the Western Conference. Today's decision represented a victory both for the Northwest Council interests and for a group opposed to the leadership of Arthur S. Dudley, secretary-manager of the Sacramento Chamber of Commerce. Control of the Southwest group switched to Brig. Gen. William E. Gilmore of San Francisco. General Gilmore was not at the meeting.

In the Southwest group are the states of California, Nevada, Arizona, New Mexico, Utah, Colorado and Wyoming. In the Northwest Council are Washington, Oregon, Idaho, Montana and British Columbia.

The delegates also refused to accept sponsorship by the National Aeronautic Association for anything unless each of the various separate regions requests such sponsorship. The meeting today ended efforts to place the regional conferences under the NAA.

**HOMER C. CUDMORE**, former district traffic agent for TWA in New York City, has joined Airline Feeder System, Inc., as traffic manager.

## DEGREE TO WARNER

**Norwich University Honors President  
of Society of Automotive  
Engineers**

Norwich, Vt., June 6—Edward P. Warner, president of the Society of Automotive Engineers, today received an



Warner

honorary Doctor of Science degree at Norwich University "for distinguished service of great value on many important commissions in the field of aviation." A graduate of Harvard University and of Massachusetts Institute of Technology, Mr. Warner formerly was professor of aeronautical engineering at MIT, and is a former assistant secretary of the Navy for aeronautics. During the past academic year he has been a lecturer on the foundation of the James Jackson Cabot professorship of air traffic regulation and air transportation.

## Moss Patterson Heads Southwest Conference

Wichita, Kansas, June 3—Moss Patterson, prominent aviation leader of Oklahoma City, was elected president of the Southwest Aviation Conference here today by representatives of the eight states which participated in the first meeting of the conference in Oklahoma City in March.

Fort Worth, Texas, was chosen for the scene of the next conference to be held March 2-4, 1939.

Alfred MacDonald, director of aviation for Wichita, was elected vice-president, and Clarence R. Mooney, of the Kansas City Chamber of Commerce,

## New Beechcraft F17D



Beechcraft announces that its F17D, 330-hp. Jacobs powered model, similar to its other biplanes, has been granted an A.T.C. by the Bureau of Air Commerce. In power, weight, and performance it is between the E17B 285-hp. model and the D17 450-hp. craft. It is available with a fixed pitch Curtis Reed metal propeller, a Hamilton Standard controllable, or constant speed propeller. During BAC tests, the company reports, landing run at 1,350-ft. altitude, with full gross load and no wind, was measured at 403-ft. Landing gear is retractable.

Company specifications follow: Engine, Jacobs L-6, 7 cylinder, 330-hp. for takeoff and 300-hp. maximum at 3,700-ft. Tankage, standard gas tanks, 77-gals., standard oil tanks, 5-gals. Gross weight 3,550-lbs. Useful load, 1,395-lbs. Empty weight, 2,155-lbs. Fuel consumption, 17-gals. an hour at 210-hp. cruising, or 10.4 miles per gallon of fuel.

An allowance of 3 1/4-gal. of fuel is deducted for warm-up and climb to cruising altitude, and a reserve of 45 minutes' fuel supply at 210-hp. is available at all ranges specified. By using reserve supply, range can be extended 132 miles. With 77-gals. of fuel, range is 635 miles with a 725-lb. payload. Cruising speed, fixed pitch propeller, 177-mph. Cruising speed, controllable propeller, 182-mph. Landing speed, sea level, 46-mph. Rate of climb, sea level, 1,300-ft. a minute. Service ceiling with fixed pitch propeller, 18,000-ft; with controllable propeller, 20,000-ft.

was elected secretary-treasurer. Plans were perfected for making the conference a permanent organization for aviation in Texas, Oklahoma, Nebraska, Kansas, Missouri, Arkansas, Louisiana and New Mexico.

## Polish Flyers End Flight

Major Wacław Makowski and four other Polish flyers arrived in Warsaw June 5 after ferrying a new Lockheed 14 from Los Angeles for the Polish Line LOT. The flight, which began May 13, was estimated at 16,500 miles in length.



## 1938 FINDS GENERALS OUT IN FRONT AGAIN

● The same unique quality that makes General Airplane tires first choice for strenuous military service makes them first choice in commercial flying where there can be no compromise with safety.

### Prominent Users of Generals

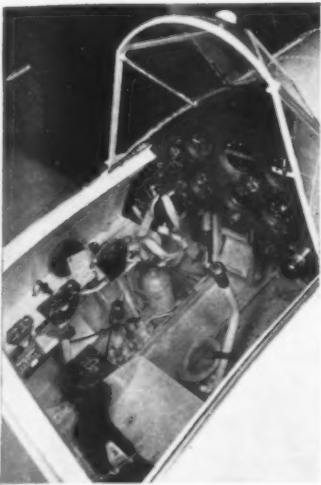
Army	Navy
Stearman	T. W. A.
Beech	Pennsylvania Central
Piper—"Cub"	Air Lines
Curtiss	Seversky
Branniff	Chance Vought
Monocoupe	Fairchild

**GENERAL TIRE & RUBBER CO. • AKRON, OHIO**

**GENERAL** *Airplane Tires*  
KNOWN ROUND THE WORLD FOR SAFETY!



## Al Williams' New Grumman



Exterior and cockpit views of Al Williams' new Grumman G-32 "Gulhawk III," a two-seater which he tested and accepted from the manufacturer just before sailing on the Queen Mary June 8 to participate in the London Daily Express aircraft display to be held at Gatwick, England, June 25. He is taking a single-seater, "Gulhawk, II" for participation in the show. Shown seated behind Williams is Samuel F. Pryor, Jr., prominent New York business man and aviation enthusiast.

Williams, manager of the aviation department of Gulf Oil Corp., will use the Gulhawk III as a company executive ship. The department owns six other planes, including five Stinson Reliants.

Claimed to be the first "two-seater single-seater" in the country, the fuselage is identical in length, size and construction with that of the single-seater, the only major departure in dimensions being wing span. The new plane has split flaps on the under side of the upper wing, whereas the single-seater has no flaps.

Characteristics, as announced by the Gulf Oil Corp., follow:

Hamilton Standard Controllable pitch propeller; Wright Cyclone 1,000-hp. engine; gross weight with 130-gals. of fuel, 4,550; power loading, 5.35-lbs. per horsepower; wing loading, 17.4-lbs. per sq-ft.

Performance figures are announced as: 280-mph. maximum speed at 7,000-ft.; 63-mph. stalling speed 210-mph. cruising speed with 60% power; 700 miles cruising range at 210-mph.; 3,800-ft. per min. ratio of climb; 32,000-ft. service ceiling. Basically, it is the same design as used by the Navy for its fighting planes aboard carriers, the company reports.

## First Glider Entered

Elmira, N. Y., June 1—The first craft entered in the 1938 National Soaring Contest to be held here June 25 to July 10 is a reconstructed glider owned by Robert Auburn, aeronautical engineer employed by Bell Aircraft Corp., Buffalo. "Auburn has incorporated two proven designs in his present glider and by so doing stands in a good position to make a very definite contribution to glider design that will be within the reach of the many groups wishing to build inexpensive utility craft capable of competing with foreign gliders," Earl R. Southee, general manager of Elmira Area Soaring Corp. said. "Complete blueprints are being made and later sets will be placed on the market at a reasonable price."

## Jury Awards Commission

Los Angeles, May 27—A jury ruled today that Bert Hall, war aviator, was entitled to \$40,000 in commissions for his services in selling 20 planes to the Chinese Nationalist Government in 1931. Douglas Aircraft Co. had declared Hall's services were valued at \$3,000.

## Retires From Miami Group

R. V. Waters, for ten years president of the Greater Miami Airport Association, has retired and was succeeded recently by Dr. Joseph S. Stewart at the annual election of officers. Other officers elected include William C. Hill, first vice president; Leland Hyzer, second vice president; Dr. W. Haskins, third vice president, and George W. Tompkins, secretary-treasurer. The following are directors: (for two years) J. Fred Brunner, B. B. Freeland, Claude E. Pullen, Karl Voelter, R. V. Waters; (for one year) Dr. A. J. Bertram, G. Carl Adams, William V. Dee, Dr. P. L. Dodge, Thomas Arthur.

## 30 Oklahoma Planes Tour

Tulsa, Okla., June 8—About 30 planes are expected to take off here tomorrow on the three-day Oklahoma air tour of 13 cities. Included in the Oklahoma City representatives arriving here tonight were: Jerry Sass, sportsman pilot; Lawler Reeves, Hardy Young, Una Goodwin, Haskell Shaw, J. M. Gentry, Joe Bates; James Brazell, said to be the nation's oldest pilot; Carl Winstead, Cessna representative; Herbert Howell, State WPA airport engineer, and president of the Aviation Club.

## Orlando's Big Plans

Orlando, Fla., June 6—The city of Orlando has purchased 220 acres for future enlargement of the airport to provide for runways of 8,400, 5,500 and 5,000-ft. respectively. Longest runway at present is 3,400-ft. and under immediate plants the longest would be 6,400-ft. The extensions, which will be to the south and east of the present fields, will provide for a virtually new airport.

## Work Starts On BAC Experimental Medical Station at Kansas City

Contracts Awarded Following Long Delays; Tests to Be Conducted on Pilots to Determine Average Performance Level

Following a long series of delays, the Bureau of Air Commerce during the week ended June 11, awarded contracts and started work on an experimental medical station at Kansas City, Mo., at which it expects to conduct an exhaustive study of the physiological, neurological and psychological effects of the human body produced by piloting present day transport aircraft in scheduled operation.

The station, establishment of which is expected to cost between \$22,000 and \$30,000, is to be located in the downtown Bryant Building, five minutes from the Kansas City airport. Dr. W. H. Miller, BAC flight surgeon and aviation medical specialist will be in charge of the work, assisted by a technician and a clerk. The station is expected to be in full operation by about Aug. 1.

A difference of opinion between the air transport section and Assistant Secretary of Commerce J. M. Johnson as to the amount of rent that should be paid to house the station caused a delay of several months in its establishment.

Money for establishment of the station comes out of the safety and planning division's 1938 appropriation, and operating expenses will come from the 1939 fund.

Dr. Miller will follow closely recommendations made in his recent report entitled "Analysis of the Aviation Medicine Situation and Recommendations for a Bureau Program." In urging that exhaustive studies be made, Dr. Miller stated that tests should be made on personnel under controlled and measured flight conditions and in simulated flight performance tests, using a Link Trainer. This trainer has already been purchased by the BAC.

"Experiments should be conducted," Dr. Miller said, "on not less than 50 airline pilots in order to determine an average of performance level for the average airline pilot in the industry. These subjects should provide a differential of age factor, physique, nervous and mental organization, experience and training. Studies should be made under varying operating conditions. Seasonal, climatic and weather conditions, altitudes, terrain, time of origination and termination of flight, length of schedule, day and night performance, rest periods, vacations, social, economic and environmental conditions should receive consideration."

The Bureau, under Dr. Miller's plan, will enter into contracts with several universities for the development of new clinical measurements. Studies in anoxia, physiology, bio-chemistry and for the determination of emotional reaction stimuli measurements will be carried on at Northwestern, Harvard, and the University of Pennsylvania. In addition, Dartmouth and Columbia are being considered for contracts.

Relation of mental to physical fatigue will be carefully studied at the station, and it is expected that the Link Trainer will prove particularly valuable in this connection. With three airlines, TWA, Braniff and Hanford, operating into Kansas City, the BAC expects to conduct many tests under actual flight conditions.

Dr. Miller has also recommended appointment of a committee consisting of representatives of the Army Medical Corps, Navy Medical Corps, Public Health research division, National Research Council, and those members of research institutions under contract, to aid in making an analysis of the various problems arising and to suggest methods of solution.

His report contains a description and discussion of facilities of the Army, Navy, and BAC medical activities, Public Health Service, Aero Medical Association, National Research Council, and the American Medical Association. Universities, airlines and airline medical directors, research institutes and independent research workers are also discussed. Copies of the report may be obtained by writing to the correspondence section, Bureau of Air Commerce, Department of Commerce, Washington, D. C.

## Oklahoma Flying Plan

Enid, Okla., June 7—State aviation leaders met here tonight to discuss organization of a civil air corps involving large scale non-profit flight training. The meeting, sponsored by the Woodring and Enid Flying Clubs, was addressed by Edgar S. Smith, WPA administration leisure time recreation director here; J. M. Gentry, commissioner of public safety; W. C. Lewis, Oklahoma City, president of the Air Reserve Officers' Association; Maj. T. L. Gilbert, Oklahoma City, unit instructor, commanding Air Corps Reserve units for Colorado and Oklahoma; O. R. Lindsay, Tulsa, aeronautics inspector, BAC, and Roy Holbird, Enid, county attorney of Garfield County.

## PRIDE In His Workmanship--



is a dominant characteristic of every Great Plains worker whether that worker be a porter, a skilled mechanic, a white collar worker or a "big shot." It, too, is the dominant trait which built Braniff Airways from a 125-mile route, one-trip-a-day pioneer operation to an air transport system flying thousands of miles daily over 2500 miles of airways serving a prosperous community of 10,000,000 people.



**BRANIFF**  
DOUGLAS

*B. Liners*

## P. O. EXPERIMENTAL FUNDS EARMARKED

**Congress Says Department May Use \$100,000 of 1939 Appropriation for 'Giro, Pick-Up Service'**

Congress has given the Post Office Department permission in the second deficiency bill (H. R. 10851) to use \$100,000 of its 1939 contract air mail appropriation for the establishment of experimental service, authorized by the experimental bill (H. R. 7448), approved April 15, 1938. Permission came somewhat unexpectedly at the last moment in the form of an amendment offered by Congressman Jennings Randolph of West Virginia.

The \$100,000, it is learned, will be used only in connection with autogiros and pick-up devices, and will not include establishment of regular feeder routes. If the P. O. decides to inaugurate feeder service carrying mail, it will be necessary to get permission from the Civil Aeronautics Authority, although the Department will use its own funds. Routes carrying only passengers will not be controlled by the P. O.

The 1939 air mail appropriation amounts to \$16,650,000. The P. O. is reasonably sure that out of this amount it will be able to find \$100,000 to inaugurate the experimental routes. Based on 95% performance, the department planned to spend approximately \$16,443,000 for air mail payments, but this was on the assumption that an average of 30¢ a mile would be paid on the four routes recently awarded. Accepted bids on these routes were 33 1/3¢, 31¢ 19 1/2¢ and 17¢, so that the air mail payment figure will be somewhat lower. However, administrative expenses must also come out of the appropriation. But even with this, the P. O. is certain that \$100,000 will be left over.

Money could have been used out of the 1939 contract air mail appropriation for experimental routes without Congressional earmarking, but Second Assistant Postmaster General Harlee Branch does not consider this proper procedure.

## Lorber Named Captain of Bermuda Clipper

Captain Charles A. Lorber on June 8 replaced Captain R. O. D. Sullivan as commander of the Bermuda Clipper of Pan American Airways.



Lorber

Sullivan was transferred to the Pacific coast to supervise flight tests of the Boeing clipper. Captain Lorber, with Pan American ten years, joined the line as a mechanic, and shortly afterward was promoted to flight-mechanic on the Cuba-Puerto Rico run. Before the end of his first year he had qualified as a pilot. In September, 1929, he was assigned to accompany Col. Charles A. Lindbergh as a co-pilot and flight mechanic on the Caribbean circle tour, which included an aerial exploration of the Mayan ruins. Eighteen months later he commanded the Philadelphia Academy of Science expedition into the Brazil jungles. In 1936 he was transferred to the Pacific and up to his latest promotion had commanded 11 flights between America and the Orient, running up more than 200,000 miles of scheduled ocean flying. According to officials, he ranks next to Captain Sullivan, whose Wake and Guam flights have increased his total Trans-Pacific mileage to 220,000. He is married and the father of four daughters and a son.

## 78,636 Inspect American's Skysleeper



Photo shows a long line of Washingtonians waiting to visit the American Airlines' DST sleeper plane which was exhibited in the Bureau of Air Commerce front yard during National Air Mail Week. A total of 78,636 persons inspected the ship in eight days. Previous exhibits in Boston, New York and Los Angeles saw crowds of 34,828, 24,904 and 5,500, respectively, visiting similar planes. A charge of 25¢ per person was made in Los Angeles, all proceeds being turned over to the Red Cross. Crowds similar to the one above even stood in the rain to inspect the Washington plane. Facing the plane is the Department of Commerce building. The street in front of it was the landing and takeoff point for the Kellett autogiro demonstration mail flights.

## IMPERIAL MEN SHIFTED

**Bermuda Division Names New Manager of Operations and Captain**

Imperial Airways of Bermuda announces appointment of Capt. Griffiths J. Powell as operations manager for the Bermuda area, and assumption of command of the Imperial Cavalier by Capt. M. R. Alderson from Capt. W. N. Cumming, who has been master since Imperial opened the service.

Capt. Powell, well known in America, was master of the Imperial Cambria which made four Atlantic crossings last summer, the last being the record breaking flight between Botwood and Foyne in 10-hrs., 33-min. He is an ex-RAF officer and has flown on every branch of Imperial Airways in Africa and the far east.

Capt. Alderson, a graduate of Cambridge University, also has served on every branch of the system, and at one time was loaned by the company to be the personal pilot of the Viceroy of India.

## Macklin To Eastern

Frank J. Macklin, district traffic agent for TWA in Washington, resigned June 13 to accept a position in the traffic department of Eastern Air Lines. He will be stationed in New York for a month and then expects to be transferred to another office. Macklin has been connected with TWA's traffic department for the past seven years in Chicago, Fort Wayne, New York and Washington. Previously he was traffic manager of Continental Airlines.

## Bob Littell Promoted

Robert S. Littell, a member of TWA's traffic department since 1930, and who has served in Wichita, New York and Newark, has replaced Frank Macklin as district traffic agent for TWA in Washington, D. C. He will be in the company's offices in the National Press Building.

## Asher and Miller Shifted

Pendleton, Ore., May 27—Frank Asher, for more than three years station manager for United Air Lines here, has been transferred to Sacramento, Cal., operations. U. S. Miller, former Elko, Nev., station manager, will replace Asher here, according to Leon D. Cuddeback, superintendent of operations, western division.

## BOUNDS TO C. & S.

**Appointed Director of Advertising and Publicity For Line**

St. Louis, June 3—George E. Bounds, former director of advertising and sales for Parks Air College in East St. Louis, Ill., has been appointed director of advertising and publicity for Chicago and Southern Air Lines, Inc., according to announcement by D. D. Walker, vice-president in charge of traffic.



Bounds

For the past four months Mr. Bounds has been handling C&S advertising as account executive for the company's advertising agency, Oakleigh R. French & Associates. He will make his headquarters at the C&S offices at Lambert-St. Louis Field, Robertson, Mo.

## Vonnegut Leaves C. & S.

Franklin F. Vonnegut, assistant general traffic manager of Chicago & Southern Air Lines, has resigned that post effective June 15, but expects to continue his career in the air transport industry in which he has had many years' experience. Prior to joining the C&S headquarters staff in St. Louis, Vonnegut was for some time in charge of the company's traffic office in the Palmer House, Chicago, and formerly had been associated with Eastern Air Lines, in Washington, D. C.

## Beattie to Merge

Oklahoma City, June 6—William (Bill) Beattie, general sales manager for Braniff Airways, and who now is being called "Jean Lafitte" after the famous pirate for some misdemeanors known to those in the Southwest, has announced his plans to be married in September to Miss Jerry Cobb, publicity director for the Dallas Athletic Club. Miss Cobb has been in publicity work and the romance began when Braniff held its last sales meeting in April at the Dallas Club.

## P. O. Receives Fourth Leasing Application from United, WAE

United Air Lines and Western Air Express, in another effort to obtain Post Office permission to operate coast-to-coast sleeper service from Los Angeles to Newark by means of a leasing arrangement at Salt Lake City, have submitted a fourth contract to the department. Permission had been refused on two previous occasions and the Post Office adjourned a third hearing, asking the companies to prepare a more detailed contract.

In comparison with the first two lengthy contracts submitted to the P. O., the third agreement, which was only a little over a page long, merely stated that the companies wished, from time to time, to lease planes from each other at Salt Lake City. Commenting on this latter document, Acting Solicitor Walter E. Kelly called it "practically worthless" on the grounds that it did not fully describe the proposed operation.

Although terms of the fourth contract are not known, it is learned that it goes into more detail, and contains administrative and maintenance arrangements. Because of the fact that three hearings have been held, it is possible that the Post Office may issue a decision without reopening the case.

## MERGER TALK

**C. & S. and National Reported Holding Unofficial Conferences**

Talk of merger between Chicago and Southern Air Lines and National Airlines System, Inc., was prominent in airline circles following visit of a C. & S. official to Florida where conversations were held with G. T. Baker, president of National. Baker was low bidder on a new air mail route from Jacksonville to New Orleans, the latter city being the southern terminus of Chicago and Southern.

Meanwhile financial circles were following refinancing efforts by Chicago and Southern with much interest. Results will be known by July 1. Preferred stock control in the line is understood to be held by John Hertz and through an agreement made at the time new equipment was purchased several years ago, it is understood control of the line goes to the preferred stockholders July 1 unless dividend payments are met. There also is talk of new money going into the line. A recent mail pay increase of 3¢ a mile places the line in far better financial condition. Carleton Putnam, president of C. & S., could not be reached for confirmation of refinancing efforts.

## Appoint TCA Architect

Montreal, June 8—John Schofield, architect for the Canadian National Railways, has been appointed to a similar position with Trans-Canada Air Lines, it was announced today. He began railway service as a designer in Winnipeg in 1904, and became assistant architect of Canadian National in 1909. He came to Montreal as architect for the system in 1923.

**MARGUERITE CHANDLER**, chief ticket agent in Spokane since August for Northwest Airlines, has been promoted to the corresponding post in Seattle. Ernest B. Code, district traffic manager at Spokane, announces.

**WADE JOHNSON**, formerly at TWA's Wichita Falls, Tex., airport station, has resigned to join Continental Air Lines at Denver. W. T. Evans, has been transferred from Kansas City to replace him.

American Airlines has named **IRVING BAILEY** assistant manager of the Bendix Field office at South Bend, Ind., transferring him from New Haven.

## TRAFFIC

## Condor Airlines Resumes

Condor Airlines resumed passenger and express operations between San Francisco and Monterey on May 19.

Stops are made at Salinas, San Jose and Palo Alto, with two round-trips daily. The San Francisco Bay Air-drome is the terminal for the Bay area. The line has operated the route since 1936 except during the winter seasons. W. W. Lawrence is traffic manager and Fred Funston, of Oakland, is president.

## New Route Starts Sept. 1

TWA will begin operations on the new Phoenix-Las Vegas route about Sept. 1. Airports at Kingman and Prescott, both in Arizona, are to be improved in the meantime. The company is expecting to carry business from connecting carriers into San Francisco for the 1939 Golden Gate exposition.

## Catalina Line Expands

Wilmington-Catalina Air Lines, which last year carried 25,000 passengers to the famous island off Los Angeles, is supplementing its two Douglas amphibians with two landplanes as soon as the landing field is completed on the island. On May 19 Walter Seiler, vice president, signed a lease with Long Beach for the use of the Long Beach Municipal Airport which is to be the terminal for the landplane service. This will give Wilmington-Catalina direct connecting service with transcontinental airlines using the Long Beach field.

## National Parks

Western Air Express resumes its summer operations to Yellowstone Park and begins new schedules into Glacier National Park June 15.

## New WAS Schedule

Wyoming Air Service has inaugurated "The Dude Rancher," a new schedule between Cheyenne and Billings.

## Wives Free

Continental Air Lines carried wives free until June 15. National Airlines will continue until further notice to carry wives free when they accompany their husbands.

## "Chief Liners"

Hanford Airlines is emphasizing its "Chief Liners" in its advertising, having two fast flights called "Silver Arrow" and "Flying Tomahawk".

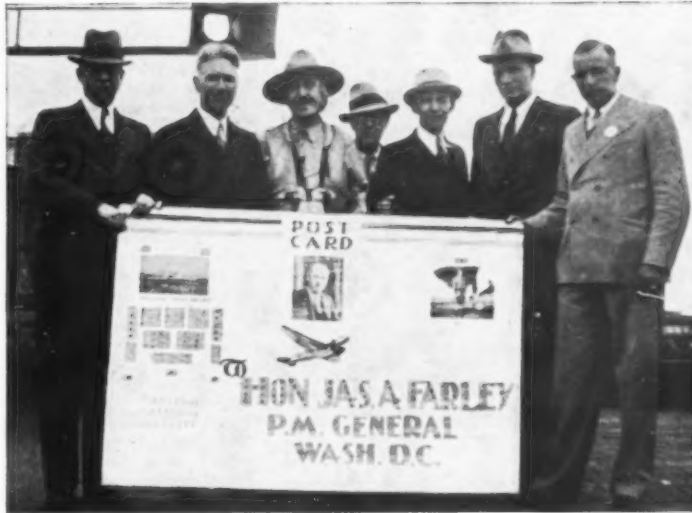
## Pan Am Opens Trial Service

Pan American Airways on May 30 inaugurated a dawn-to-dusk trial service between Miami and Maracaibo, Venezuela, flying the 1,300-mile route in nine hours. Only commercial cargo is carried at present. The schedule dips about half a day from the best previous air time and five days from steamer connections. Passengers will be accommodated later, it was said. The international postal division of the Post Office declared that in view of the McCarran-Lea legislation, it did not contemplate advertising the route. The weekly schedule, being flown by four-engine clippers, touches Port au Prince, Haiti, thence continues directly to the South American mainland.

## P. O.—EAL Revision

An Eastern Air Lines' weight-credit schedule between New Orleans and Houston was changed to a mail pay trip by the Post Office on June 1, according to Charles P. Graddick, superintendent of air mail.

## Officials Pose with Giant Postcard



This "postcard," sent from Philadelphia, was among the thousands received by Postmaster General Farley during National Air Mail Week. Aboard the plane which brought the card to Washington were the following: (left to right), J. W. Johnson, Post Office Railway Mail Service; Capt. J. Clark Edger-to, one of the first air mail pilots in 1918, now connected with the Bureau of Air Commerce; "Bronco" Charlie Miller, said to be the last living pony express rider; William C. O'Brien, Post Office lawyer; Charles P. Graddick, superintendent of air mail; Major Al Williams, Gulf Oil Co., and Fred Bilsmeier, pilot of the plane.

## PCA Into Chicago June 15

Penn Central opens its Chicago-Grand Rapids service June 15. R. C. Cramer, Grand Rapids manager, announced June 10. Test flights have been made over three alternative routes. Ceremonies will be held with prominent visiting civic officials of both cities. Two round trips will be made daily, with departures from the Michigan city at 9:35 a.m. and 6:40 p.m. (EST) and arrival at Chicago at 9:30 a.m. and 6:35 p.m. (CST). Returning planes will leave Chicago at 10:15 a.m. and 3:35 p.m. (CST) arriving at Grand Rapids at 12:30 p.m. and 6:05 p.m. (EST). From Grand Rapids planes will continue to Detroit, Lansing, and Flint. Boeing 247-D's will be used.

## United Reduces Coast Fares

"Lowest fares in history" are announced by United Air Lines between Spokane, Portland, Ore., and California. The one-way Spokane-Portland rate is now \$15, \$25 round trip, comparing with former charges of \$18 and \$32.40. New tariffs from Spokane to San Francisco are \$50.16 one way and \$88.28 round trip; to Los Angeles, \$69.11 and \$122.38; to San Diego, \$75.11 and \$133.18.

## More Harrisburg Stops

Effective June 1, two additional stops are being made by TWA at Harrisburg, Pa., bringing the total number of stops there to seven daily.

## Christen Zephyr on New Run

When Northwest Airlines launched its new Portland-Yakima-Spokane service recently Miss Carolyn Kirby christened the first Lockheed Sky Zephyr "City of Roses."

## Drops Airport Ticket Office

American Airlines has discontinued its Allegheny County Airport ticket office and radio station near Pittsburgh. Bob Collignon, station manager, has gone to Boston.

## AA Adds Abilene Westbound

American Airlines on June 1 inaugurated a westbound air mail and passenger stop at Abilene, Tex. Eastbound stops have been made at Abilene for some time.

## AA Buys 12 Coolers

American Airlines has installed a new air conditioning truck unit at each of 12 key cities to cool planes during stops for fuel and servicing. These are in addition to three units which were used experimentally last summer. Airports at the following cities are equipped: Chicago (2), Newark (2), Memphis, El Paso, Fort Worth, Nashville, Phoenix, Tucson, Glendale, Dallas, Washington, St. Louis, and Boston. Each unit cost about \$3,500 and requires from seven to 10 minutes to condition a Flagship.

## Omits Cheyenne on Flight

United Air Lines effective May 29 omits Cheyenne on one transcontinental flight, substituting Denver for servicing. The change leaves Cheyenne with three westbound planes daily and two eastbound. United has completed final tests on lights and the radio beacon on the Denver segment.

## More Stewardesses Graduate

Although one class of eight stewardesses was graduated about June 1, Victor Vernon, personnel director for American Airlines announces two new classes will be formed soon. Qualifications: candidate must be a registered nurse, under 5-ft. 5-in. in height, weight less than 120, and have a "pleasing personality." The training course lasts five weeks.

## UAL Leases Quarters

Fresno, Calif., May 26—City officials today granted United Air Lines a lease for quarters at the airport administration building for five years, with an option to renew on the same terms for another five year period. Terms provide for payments ranging from \$25 for thirty-one landings a month to \$10 for from 91 to 120 landings and \$2.50 a landing in excess of 120.

## Air Freight Route Project

Nashville, Tenn., May 29—Aero-freight Corp. is planning an air freight route connecting Tampa, Tallahassee, Montgomery, Birmingham, Memphis, and at a later date, Kansas City, according to reports here. Porter L. Goodrum, vice-president in charge of transportation, left recently on a survey tour.

## NWA PROMOTES GARDNER

## Former Western Division Superintendent Named Operations Manager

George E. Gardner, formerly western division superintendent for Northwest Airlines at Spokane, has been appointed operations manager for the company, with headquarters at St. Paul, Croil Hunter, president and general manager of Northwest, announced June 2. He will take over duties formerly performed by the late Fred W. Whittemore, who was vice-president in charge of operations.

Gardner, who had been stationed at Spokane since September, 1937, was born in Fargo, N. D., and has been flying since 1920. He has more than 5,400 flying hours to his credit, and is a licensed transport pilot. He holds a Navy flyer's rating and is a first lieutenant in the Marine Corps Aviation Reserve. In 1928 he joined the Bureau of Air Commerce and was stationed at Minneapolis. Later he went to Washington, being promoted to chief inspector. While with the Bureau he organized the airline inspection service there, and became its first assistant chief of inspection.

Resigning from the Bureau in December, 1933, he spent a year with an oil concern's aviation sales department. In 1935 he returned to commercial aviation as western division superintendent for Eastern Air Lines. He left this post to join Northwest Airlines as western division superintendent.

## CULBERT QUILTS TWA

## Returns to Chicago and Southern After 6 Months in K. C.

Amos Culbert has resigned as assistant to the president of Transcontinental & Western Air, Inc., and is returning to Chicago and Southern Air Lines as executive vice-president effective June 15.

Culbert left C. & S. only last January to become Jack Frye's assistant at the Kansas City headquarters. After six months in Kansas City he returns to the post he left in St. Louis, working directly under Carleton Putnam, C. & S. president. E. C. Sweeney, who was appointed general counsel of C. & S. when Culbert left in January, has resigned to return to private practice.

## EXPANDS PUBLICITY DEPT.

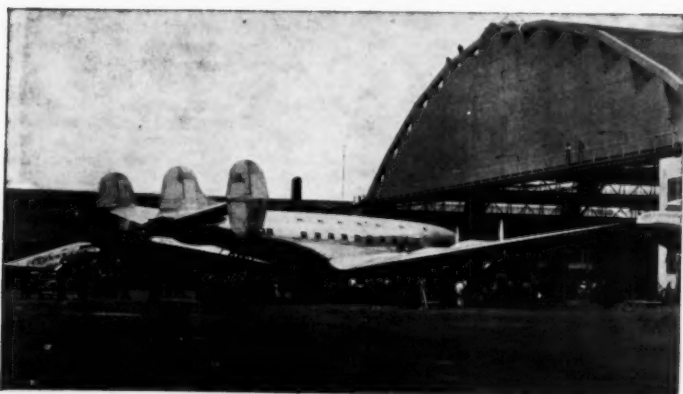
## American Airlines Takes on Four, Including Two Full Time Photogs

Chicago, June 9—American Airlines' publicity department has added four new members, C. A. Rheinstrom, vice-president, announced here. E. H. Pickering, one of the outstanding photographers in the industry, has joined the Chicago office on a full time basis while the photographic duties on the Pacific coast were taken over by Bob Turner. Leo Boyle, formerly with the sales department in Detroit, was transferred to Newark where he will work under Pat O'Malley, eastern publicity director, as a combination reporter-photographer at Newark Airport. Mr. Rheinstrom also announced addition of a large library of color photographs which will be serviced free to newspapers and magazines, supplementing the 9,000 black and white pictures of all phases of the aviation industry which have been available for some time.

## Brownsville Improvements

Brownsville, Tex., June 3—Additional rooms are under construction at Pan American Municipal Airport, each to accommodate equipment for the radio beam station, the express department, and facilities for stewards.

## Debut of the DC-4



Outside the hangar the DC-4 is being readied for its first test flights. With gross weight of 65,000 pounds, it represents America's largest landplane.



Ready for tests, its 138-foot wing span and tricycle landing gear present an awesome sight to those fortunate enough to be on hand.



Donald W. Douglas, (left) president of Douglas Aircraft Company, receives license from Department of Commerce representative W. Morrison Cline. Note entrance for pilots and other crew members. The DC-4 will carry 42 passengers as a day plane and 30 as a sleeper, with crew of five. Cruising speed at 8,000 feet using 65% of power is rated at 196-mph. Service ceiling is 22,900 feet.

## Birdmen on NBC Network

New York, June 3—Weekly radio broadcasts on a national network of NBC will begin June 11, sponsored by Junior Birdmen of America, it was announced today. Lawrence Shaw, president and national director, said Commander Frank Hawks will be program director and commentator. Short aviation sketches, guest flyers, organization news and aviation topics will spot each Saturday 15-minute period.

## Plan Large Hangar

Seattle, June 2—King County Commissioners have disclosed plans for construction of a hangar at Boeing Field to be leased to Pan American Airways. It will cost \$170,000 and will be 160 by 220 feet, with concrete floor, brick and tile walls, motor-driven concrete doors and a warming-up apron. A WPA grant will be sought. An airport improvement project has also been planned.

## Connecticut Club Has Its Second Sky Tour

Hartford, Conn., June 5—The second circle Sky Tour of the Aviation Club of Connecticut, starting here and returning by way of New Haven and Providence, ended this afternoon with Robert D. W. Vroom, of Wallingford, winning the *Hartford Times* Trophy for the competitive last lap.

Twenty-two pilots, and their passengers were entered in the contest. Each pilot prepared his own flight plan, based on cruising speed specified on his entry sheet, strength of announced headwinds, and estimated the time which would be required to fly from the starting line at Providence to the finish at Hartford. Vroom made the flight in 36 minutes, exactly the time he estimated.

A flight of Connecticut National Guard planes led by Maj. Hubert E. Johnson preceded the tour as a military escort. Several thousand spectators gathered at Brainard Field here to watch the finish. Center of attraction was the Gwinn Airacorn flown by Lieut. Comdr. Frank M. Hawks. Inter-airport communications were furnished by the Naval Communications Reserves.

Timers at Brainard Field were City Aviation Commissioners Medos Pelshaw and John B. O'Neil. They were aided by State Commissioner of Aeronautics Charles L. Morris. Judges were Francis S. Murphy, general manager of the *Times*, former Gov. John H. Trumbull, and Commander Hawks. Vroom piloted a Waco, averaging 125-mph.

C. A. Moeller, New Haven, flying an Aeronca, was only four seconds off his estimated time, flying the lap in 66.04 minutes. He placed second and Peter Mikkelsen, Wilson, Conn., flying a Waco, was third, being six seconds off his estimated time of 55 minutes. Other pilots, in the order of their finish, were:

Carl F. Anderson, Wilford Kamerer, Albert J. Privensal, and Robert S. Riley, of Hartford; John M. Martinez, New Haven; Wilfred Wright, Middlefield; John M. Warner, Greenwich; Francis B. Field, Bethany; S. L. Pond, Woodbury; L. W. Baldwin, Woodbridge; John W. Tweed, New Haven; Louis C. Hall, Wallingford; Dr. Rudolph Stawowczyk, Bridgeport; Lyman B. Brainerd, West Hartford; Edward A. Myers, Hartford; Roland D. Officer, Jr., Hartford; Robert M. Kelley, East Hampton; Avard Fuller, Hartford.

Second prize trophy was presented by the Hartford Chamber of Commerce, and five hours of free flying instruction with Bethany Flying Service will be offered to one of the passengers flown in the competitive last lap who writes the best 200 word letter to the *Times* stating what he found most interesting and enjoyable on the cruise and why he is now more interested in learning to fly. None of the passengers entered has taken flying instructions. Another trophy will be awarded to the passenger who is first to obtain his state student certificate after the cruise, but within three months, and a similar prize will go to the pilot who flew this passenger.

## Long Beach to Enlarge Port

Long Beach, Cal., May 27—The city will purchase 325 acres of land soon for improvement of Municipal Airport during the coming fiscal year, City Manager R. M. Dorton has announced. The land being acquired is divided into 10 parcels of approximately 32½ acres each. The first parcel has already been bought. Negotiations are now under way with a utility company for removal of high tension wires on the south side of the field.

C. H. FITCH, employed by United Air Lines as Pendleton, Ore., radio operator for the past year, has been transferred to Salt Lake City. MILTON SHAW formerly with United at Salt Lake City, is replacing him.

## 2 LARGEST CRAFT MAKE GALA DEBUTS

## Boeing Clipper and DC-4 Take Off June 7 Almost at Same Time

The two greatest airplanes ever built in America, the 72-passenger Boeing flying boat and the 42-passenger Douglas DC-4 landplane, took off on their first flights June 7 hardly an hour and a half apart.

In Seattle thousands watched as Edmund T. Allen lifted the Clipper from Puget Sound at about 80-mph. after a run of approximately a mile in a 20-mph. wind. The plane cruised for 38 minutes at about 2,000-ft. before alighting on Lake Washington at Sand Point Naval Air Station. Five other Clippers of the same size are to be constructed. The new ship will probably be placed in Pan American's California-New Zealand service after it completes BAC certification tests in about two months.

At Santa Monica a crowd of about 20,000 saw the DC-4, piloted by Carl Cover, vice-president of Douglas and test pilot, take off for a flight of 90 minutes over Los Angeles. It was landed twice on its retractable tricycle landing gear. The world's largest commercial land plane was ordered by five airlines, pooling the operating experience of United, TWA, American, Eastern, and Pan American.

Estimated gross weight of the clipper, when loaded for ocean service, is 82,500-lbs.; that of the DC-4, 65,000-lbs. The Boeing's wing span is 152-ft.; and its length is 109-ft.; the Douglas span is 138-ft. and the length is 95-ft. The clipper will carry 74 passengers from 1,000 to 1,500 miles, or 40 to 50 passengers 2,500 miles. The DC-4 accommodates 42 passengers, but fewer if its maximum cruising range of 2,200 miles is operated. Estimated top speed of the Boeing is 200-mph.; for the Douglas about 240-mph.

The flying boat has four 1,500-hp. Wright Cyclone engines; the landplane four 1,400-hp. Pratt & Whitney Hornets. The clipper will accommodate a crew of eight, and the Douglas five. The Douglas has the additional feature of a pressurized cabin for high altitude flights.

## Records

Ludwig Hofmann on June 1 claimed a new gliding record of 250 miles, from Trebbin, near Berlin, to Rikhsenstahl, Upper Silesia, in 4½-hrs. He carried one passenger.

Maj. Gen. Ernst Udet, Germany, in a Heinkel one-seater plane covered 100 kilometers (62.1-mi.) at 393.94-mph. it was reported June 5. The old record was made by Furio Niclot, Italy, Dec. 5, 1937, at a speed of 344.46-mph.

A four-motored Junkers with 11,023-lbs. pay load, reached 30,555-ft. on June 6, Berlin authorities announce. The old mark was 29,462-ft. set by Maj. Andrei Youmachev of Russia Oct. 23, 1936.

A new British gliding height record of 11,000-ft. was announced by P. A. Wills on June 6.

Maurice Rossi, French trans-Atlantic flyer, announced three minor world record flights June 8: the speed record for 5,000 kilometers (3,105 miles) without load, and with 110 and 220-lbs. of cargo. His time was 12 hrs., 27 min., 38 secs. at 9,000-ft.

PAUL E. GILLESPIE, director of Roosevelt Field Aviation School for three years, has resigned, and is replaced by HUGH COPELAND, ground school instructor at the institution since 1929.

SPARTAN SCHOOL OF AERONAUTICS, Tulsa, Okla., now is equipped to provide frequency measurement service. RCA Manufacturing Co., Inc., Camden, N. J., announces.

LIEUT. CHARLES A. CLARK has been detailed as assistant public relations officer, in addition to being in charge of the photographic department, at Kelly Field.

## Boeing Clipper Ready For Oceanic Flying

**\$80,522,277 SPENT  
BY WPA ON PORTS**

Hopkins Statement Issued May 29  
Covers Entire Period to  
Feb. 28, 1938

New projects have been added to the nation-wide WPA network of airports and airways at the rate of one every weekday during the first eight months of the current fiscal year, it was announced in Washington May 29 by Administrator Harry L. Hopkins.

From June 30, 1937, through Feb. 28, 1938, number of projects increased from 940 to 1164, and airport work was begun during that period on 41 new sites, increasing the total number from 567 to 608. Federal expenditures for this work amounted to \$16,811,635. Total amount spent on airport and airways projects through Feb. 28 was \$80,522,277. The CWA and FERA, predecessors, spent \$24,000,000 on a similar program.

The following table shows airway and airport projects placed in operation by WPA state administrators as of Feb. 28:

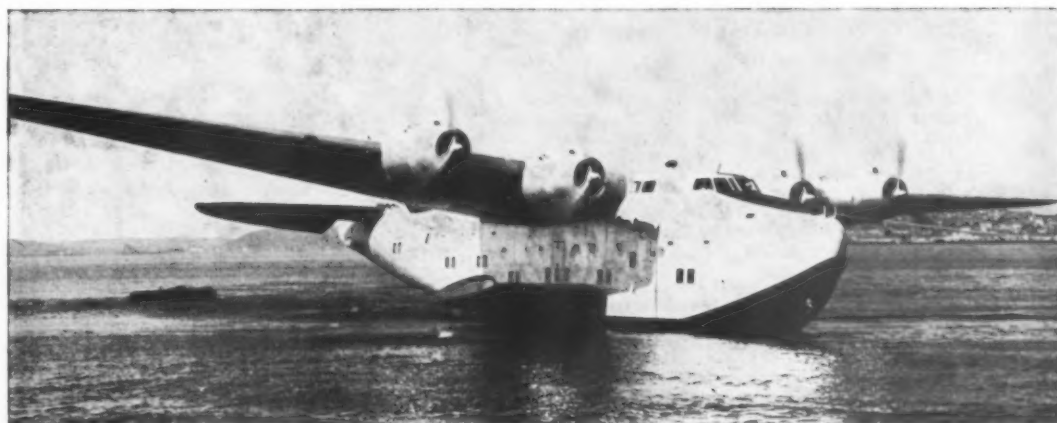
State	Airport Sites	Federal Expenditures
Alabama	17	1,358,040
Arizona	4	169,493
Arkansas	4	160,476
California	31	9,225,759
Colorado	7	723,056
Connecticut	6	1,258,404
Delaware	1	114,783
District of Columbia	1	114,783
Florida	49	2,161,768
Georgia	20	1,049,893
Idaho	6	241,005
Illinois	9	3,629,173
Indiana	13	1,836,554
Iowa	4	143,903
Kansas	7	301,774
Kentucky	3	90,029
Louisiana	9	425,664
Maine	13	941,670
Maryland	2	114,017
Massachusetts	13	2,516,523
Michigan	60	1,865,047
Minnesota	11	859,917
Mississippi	21	936,687
Missouri	7	632,166
Montana	19	340,019
Nebraska	7	1,380,829
Nevada	4	74,614
New Hampshire	4	552,684
New Jersey	8	3,468,234
New Mexico	2	153,273
New York City	3	6,831,261
New York State	26	2,855,447
North Carolina	14	1,261,353
North Dakota	4	127,993
Ohio	12	5,891,241
Oklahoma	7	331,934
Oregon	16	2,154,661
Pennsylvania	34	13,186,424
Rhode Island	4	85,915
South Carolina	10	1,358,201
South Dakota	9	264,906
Tennessee	8	3,613,145
Texas	23	693,810
Utah	6	1,175,577
Vermont	4	157,314
Virginia	14	381,843
Washington	22	1,349,443
West Virginia	6	720,991
Wisconsin	13	884,613
Wyoming	5	166,600
Hawaii	7	304,076
U. S. Total	608	\$80,522,277

**Army Air Corps Bill**

Congress on June 6 passed a bill (S. 3822) authorizing an increase in the enlisted strength of the Army Air Corps from 18,000 to 21,500 men. Funds for the increase are provided in the 1939 Military Establishment bill, but a special authorization was necessary before the new men could be enlisted. The number of Air Corps planes was recently increased from 1,800 to 2,320 and the additional men will be used to put these ships into commission.

**Summer Course at Randolph**

San Antonio, June 6—About 60 Air Corps reserve officers will report at Randolph Field here for a special course beginning shortly after July 1. Those who complete the course are given an initial assignment of one year's active duty with the privilege of an extension of two years.



The 41-ton giant clipper is shown in Elliott Bay, Seattle, during a warm-up period for its four 1500-hp. twin-row Wright Cyclones. Gross weight is 82,500-lbs., wing span is 152-ft., and length is 109-ft.



Test Pilot Edmund T. Allen (left) and Captain Harold Gray, senior master pilot of Pan American Airways, look over the new clipper.

**Chief Instructor Appointed**

Walla Walla, Wash., May 28—Jack Loney, of Walla Walla, has been named chief instructor at Municipal Airport, George M. Brown, operator who recently took charge of the field for the city has announced. Loney recently was graduated from Ryan School of Aeronautics as a government approved flight instructor with rating of transport pilot. There are four ships now available here, three cabin planes and a two-place craft. Loney recently was selected as the typical air school student and made the subject of a full-page newspaper story released by a syndicate to several hundred dailies and almost 1,000 weeklies.

**New Switlik Dealers**

Seattle, Wash., May 28—Atherton Parachute Service, west coast representatives for Switlik Parachute and Equipment Co., has appointed Eddie Brown representative for Oregon, Washington, and Alaska. Brown is stationed at Boeing Field here. Art Whitaker, Northwest Cub distributor, will continue to handle the Switlik parachute specially adapted for Cubs. Frank Derry, head of Parachute Service Co. at Los Angeles Municipal Airport, has been appointed Switlik dealer in that city.



Boeing mechanics shown adjusting one of the four engines during tests on Puget Sound. All motors are accessible during flight. Platforms opening on either side of the engine nacelles enable mechanics to work on exterior parts of the engines while plane is on the water.



Test Pilot Edmund T. Allen waves from a control room window as his crew prepares the ship for takeoff.

**TCA Hangar for Edmonton**

Edmonton, Alberta, June 3—The city will begin construction soon on a \$35,000 hangar for exclusive use of Trans-Canada Air Lines, Municipal Airport authorities said today. The company will pay the city annual rent of about \$4,200, representing 11% of the cost of construction and utility installation plus minimum landing fees of \$100 a month and all costs of operation, the city engineer declared.

**UAL Sells Old Boeing**

Cheyenne, May 27—The last one of 10 obsolete Boeing tri-motored planes withdrawn from service by United Air Lines in 1934 will be taken out of its storage hangar at Rock Springs airport and reconditioned by the company next week for sale to two eastern youths who will ferry it to South America for use there.

## AMERICAN AVIATION

*The Independent Voice of American Aeronautics*

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### FORTNIGHTLY REVIEW

(Continued from page 1)

from the slightest act of a public official in connection with aviation, but strangely enough, see very little of relative importance in activities of manufacturers, fixed base and airline operators—unless, of course, it can be made anti-social or sensational news. To put it another way, when an official speaks it is *news*, but when someone in the non-governmental side of the aviation industry speaks it is *advertising*.

We feel that it would not have taken four long years for air transportation to get out from under the blighting influence of the Air Mail Act of 1934 if the aviation industry had earlier found some means of talking back to those public officials who considered aviation a "whipping post." We do not believe in encouraging recrimination between government and industry. We do advocate fair play and propose to make AMERICAN AVIATION's second year one in which the industry we have undertaken to foster will find a medium of expression both vigorous and right.

"The Independent Voice of American Aeronautics" starts its second year with a background of much valuable experience in a new field of service to aviation's advertisers and news reading public. We shall continue to gear this magazine to the rapid change in the development of a great industry. We are more than ever ambitious to lead in serving aviation's public through a news publication of broad scope and discrimination.

### Thanks

THE publishers take this opportunity to thank most graciously the many readers of this magazine who sent wires and letters of congratulation and good wishes on the occasion of the magazine's first anniversary.

### An Occasion for Superlatives

UNIQUE in all the land is the National Air Carnival staged each year around honeysuckle time in Birmingham down in the home of the Alabama moon. Those who missed the eighth annual affair on June 4 and 5 missed an extraordinary spectacle. It wasn't so much the air show itself, although that was unusually good. It was the whole-hearted civic interest and cooperation that went into a free public event which everyone could enjoy. With an almost superhuman supply of energy, Steadham Acker, manager of Birmingham's spacious airport, was master of ceremonies for as big an aggregation of social and aviation events as has ever been seen in these United States.

Perhaps the outstanding impression (aside from Acker's abounding showmanship) was the excellent coverage by press and radio. Cooperative and sympathetic to an extreme, the press (*The News*, the *Age-Herald* and the *Post*) gave the most intelligent reporting of any air event in this country. (What a contrast to local coverage of air shows at Miami.) The whole city literally pitched in to give the public and the visitors a good time and a good exhibition of planes in the air. Believe it or not but some 200,000 persons attended Sunday's show—and not one of them paid even a dime for admission. As a civic aviation enterprise Birmingham rates No. 1 and Steadham Acker demonstrated again his rather amazing abilities at organization and administration. It all proves that it isn't necessary to have hazardous races to get the public to watch and enjoy airplanes.

### A Word on Behalf of —

DENIS MULLIGAN became director of the Bureau of Air Commerce in April under more than the usual handicaps. Legislation was pending which would absorb the Bureau and this meant that he could not formulate any long-term policies. He was not well known to the industry at large and many of those who did know him were sparing in their kind words. But Denis Mulligan dug in with rare energy and a cool head. He has turned out to be the best administrative officer the Bureau has had. He has even succeeded in keeping the Bureau out of the newspaper headlines. He has extended the olive branch of cooperation to various factions of the industry. He hasn't stuck his neck out in public. His "day" at the office usually ends late at night. In a sense it is unfortunate that Denis Mulligan was not destined to be the director for more than a few months, for here is a man who has actually achieved order in the chaos that has been the Bureau.

### Study in Ratios

IN THIS ISSUE is published a tabulation of air transport data for 1937 just released by the Department of Commerce. It shows the very interesting fact that although the domestic airlines flew 66,190,639 miles during 1937 and received \$13,055,100 in mail pay, the foreign lines—of which one company is predominant—flew 10,924,656 and received \$8,194,068. What most domestic operators forget is that foreign lines invariably collect from other nations, and in some instances the collections are quite high. There is some reason for believing that this country has done very well by its pioneering foreign routes in substantial subsidies but has hardly been equally generous to the domestic operators who collect from one government only and who carry by far the greater bulk of air mail.

### Missing the Big Stories

ALL four of the news and editorial writers of this magazine are newspapermen by background and experience. Therefore it is with some justification that we can criticize the daily press for missing one of the truly great stories of aviation history. The newspapers, all too ready to pounce on an airplane crash, are prone to miss the long-term historical advances of the airplane.

Perhaps our news judgments are wrong, but we believe that when 1,700 feeder air mail routes operate in a single week, all using small craft, each of which made perhaps a score of stops at small communities, and completing their schedules without a single accident of any consequence—we feel that this comprises a great story. Here was a vast practical demonstration of the airplane accomplished without benefit of highly-organized scheduled air transport facilities. Perhaps the (press') lack of interest is due to the fact that it is a constructive piece of news lacking blood and thunder headline appeal. We regret the tendency of newspapers today to ignore more and more news that is merely constructive. If there had been many accidents, the press boys would have gone to town in usual fashion. Are newspaper editors getting lazier by the day? It just isn't fashionable to reflect in newsprint the really great forward advances of humanity. What a pity. After all, the real fun of living is being able to see civilization progress. And Air Mail Week added an important chapter to the history of transportation.

## PRO, CON AND OTHERWISE

### Foreign Sales

June 4, 1938.

To the Editor:

Perhaps your very excellent magazine would be able to take the necessary space and patience to explain a situation that has puzzled the writer for many months. I'd like, personally, to see you handle it in editorial form.

What I'm talking about is this: In every issue of an aviation monthly there are, naturally, advertisements of our leading manufacturers of fast military aircraft. Shortly after these models are flight tested and accepted by our own government, I see following advertisements which solicit the attention of foreign powers with the phrase "Now available for export". Outstanding examples in my mind are the Seversky fighters recently sold to the Soviets. If I'm correct this was a two-place ship slightly modified from our own. But is

it any less deadly, is its range and speed and effectiveness inferior to the pursuit jobs Seversky contracts to the United States? The Consolidated PBV-1 boats are another, and of course the big Martin that is superior to anything we have in its class. The Vultee attacks for the Chinese government are nearly as effective in performance as our leading attack ships. I presume a similar situation exists in the export of aircraft engines.

According to Secretary Ickes' reluctance in giving the Nazis our American helium, he is taking no chances on the U. S. giving a "lift" to foreign aggression. But isn't it a lot more disquieting to consider the possibility of being atomized by bombs from an All-American plane in design and manufacture?

The whole situation appears to this layman of average ignorance to be an absurd paradox. Could you make it clear?

Bewildered Patriot.

## This Plane Made Braniff History



On June 20, 1928, this sturdy Stinson biplane set out from Oklahoma City to Tulsa on the first daily round trip service operated by the predecessor of Braniff Airways. Today Douglas and Lockheed B-Liners are used.

## Braniff Marks 10th Anniversary; 1st Flight Oklahoma City - Tulsa

On June 20 Braniff Airways will celebrate its tenth anniversary. On that date in 1928 Tom and Paul Braniff



Tom Braniff was selected as pilot.

But five men owning one plane did not work out—too many of them wanted to go too many places at the same time. So Tom bought out the others' interests. His brother was pilot. It was at Paul's suggestion that the Tulsa-Oklahoma City Air Line was organized on June 20, 1928, and one daily round trip put into operation.

By the end of 1928, the Stinson was making three round trips daily between Tulsa and Oklahoma City, and early in 1929 the airline merged with Universal Aviation Corporation. On Nov. 3, 1930, the present Braniff Airways, Inc., was incorporated with an operation supplementing that of Universal, connecting Wichita Falls, Oklahoma City and Tulsa. Two Lockheed Vegas comprised the Braniff fleet at that time. Early in 1931, service was extended from Tulsa to Kansas City and Chicago; later St. Louis was brought into the Braniff system with schedules from Kansas City and Chicago.

On May 7, 1934, following cancella-

tion of air mail contracts, Braniff was awarded a contract from Chicago to Dallas via Wichita and Oklahoma City, necessitating purchase of several more Vegas. Further expansion was accomplished on Jan. 1, 1935, when the company acquired Long & Harman's contract on AM15, which gave air transport service to Dallas, Fort Worth, Austin, Waco, San Antonio, Houston, Corpus Christi, Brownsville, Wichita Falls and Amarillo.

By July, 1935, business warranted purchase of larger equipment and the company bought a fleet of Lockheed Electras. These were supplemented in June, 1937, by several Douglas DC-2's. The company now operates almost 100,000 miles daily, as compared with 300 miles in 1928.

Tom Braniff is president of the company. Born 54 years ago in Salina, Kansas, he has been successful in the insurance business as well as the air transport field. Charles E. Beard, vice-president of traffic and advertising, joined Braniff in October, 1935. He had previously been connected with Northwest Airlines, and organized and managed the first consolidated airline ticket office in Chicago.

Robert J. Smith, who recently succeeded O. M. "Red" Mosier as vice-president in charge of operations, maintenance and public relations, was formerly connected with American Airways as general traffic manager. Mosier is now with American Airlines.

Other company officials include L. H. Luckey, operations manager; Reagan Stunkel, maintenance superintendent; Ray Shrader, flight superintendent, and Claude G. Adams, secretary-treasurer. There are 35 pilots and number of employees has reached 248.

tary secretary and aide to the chief of staff, and occasionally was military aide to President Theodore Roosevelt and the late William Howard Taft, then Secretary of War. He served successively as colonel and executive officer of the Signal Corps, chief of training in the Air Services, and chief of staff of the Air Corps. In 1923 he was awarded the Distinguished Service Medal.

CAPT. WARREN G. CHILD, U. S. Navy, retired, died in the Naval Hospital at San Diego, Cal., June 7. During the war he was in charge of the technical division of aviation on the staff of Admiral William Sims in London. He was a former commander of the Naval Air Station at Rockaway Beach, N. Y., and was superintendent of the Naval Flight Schools at Pensacola, Fla. From 1931 to 1933 he commanded the Anacostia Naval Air Sta-

## Folks Worth Meeting—

HIS initials are J. W. but Bill Miller would be offended if anyone called him anything but Bill. As vice president and general manager of Hanford Airlines, he is one of the most personable executives in the air transport industry.



Miller

Genial but quiet, he is the administrative driving force that has welded Hanford into an efficient and tightly-

knitted airline operation. Bill was educated in the public schools of Washington, D. C., and attended George Washington University. For two years before the U. S. entrance into the World War he was employed by the Southern Railway System. He left there to become First Lieutenant, Adjutant General's Department, of the U. S. Army, and served 21 months in Europe.

Returning from the war in 1919, he became associated with the Guggenheim Brothers in New York and when commercial aviation began to bud, he was selected to administer the \$5,000,000 Guggenheim funds to promote air transportation. He managed these funds from 1926 to 1930.

One of the results of the Guggenheim gifts was the construction of the "model airway" between Los Angeles and San Francisco. It was the forerunner of the government's extensive airway system. The first flight over

this airway was made on May 26, 1928, by Pilot Silas A. Morehouse of Western Air in a Fokker tri-motor, and recently, on the tenth anniversary, Morehouse re-traced the route. He is now with TWA.

With his experience of sponsoring airway weather reporting stations, of establishing aeronautical engineering schools in several American universities, of sponsoring the Col. Charles A. Lindbergh 1927 American tour which set the country agog, Bill Miller entered the air transport industry in 1930 by becoming secretary-treasurer of Western Air Express. He remained with this line until 1935 when he assumed his present position as Thomas Fortune Ryan 3rd took over ownership of Hanford Airlines, Inc., succeeding the old Hanford Tri-State Airlines.

He dug in and reorganized Hanford. He selected new administrative personnel for all departments, saw that modern aircraft was acquired and that a high standard of pilot training was instituted. A modern dispatch system was organized, and an efficient maintenance department established.

"Efficient functioning of an airline", he believes, "depends more than in any other business on the attitude of its employees. Their loyalty must be maintained at all costs; their cooperation must transcend any idea of just holding their job; their enthusiasm and energy must come from their interest in the airline, not from the drive of their immediate superior."

Bill is married and has one son, Robert. He lives in Kansas City, Mo., headquarters for Hanford.

tion near Washington and from 1933 to 1937 commanded the Norfolk, Va., Naval Station. He retired from active service in December, 1937. He was 55. He is survived by the widow, of Fontana, Cal., and a son, Daniel M., member of the senior class at Annapolis.

### Unsolicited Comments

"Being a newcomer in the field of aviation I was interested in subscribing to a magazine that would give the real facts on aviation and was advised that AMERICAN AVIATION was the publication for me. I sent in my subscription to same and received my first copy a week or so ago. I was very much pleased with it and believe you really 'have something there.' The magazine seems so popular that when it arrived at the office I had a difficult time getting a chance to read it as everybody else wanted to see it."

Jack Tourtelot, National Airlines, Tampa.

You will no doubt be interested to know that we read AMERICAN AVIATION very carefully and find it of great help in our work.—A. Pendleton Taliaferro, Jr., V. P., Aeronautical Securities Research Corp.

"I enjoy reading your magazine, and I wish to compliment you on the very clear manner in which your important information appears in this magazine. Our library subscribes to the magazine and they inform us that it is quite popular with our students." Peter Altman, Director, Aeronautics Dept., University of Detroit.

You are doing such a splendid job that I am taking no chances on missing an issue. I couldn't "get by" a month without AMERICAN AVIATION.

L. B. Daniels, San Francisco.

May I take this opportunity to commend you and your associates upon the

excellent job you are doing. It is indeed a pleasure to have such an accurate and well-meaning source from which to acquire the aviation news of the day. I surely hope that you will continue to campaign for the real needs of the aviation industry with an unbiased and honest opinion.

Jerome V. Roscoe, Chicago.

We feel that your publication has a definite place in the industry.

C. W. Purnell,  
Howard Aircraft Corp.,  
Chicago.

### Frye Purchases Waco

Jack Frye, president of TWA, has purchased a tri-cycle landing gear Waco job powered with a 450-hp. engine and equipped with controllable pitch propeller.

### Delegates Fly to Convention

Tulsa, Okla., May 23—Charles W. Short, Jr., municipal airport manager, today estimated that 3,578 persons flew to and from Tulsa in 10 days for the International Petroleum Exposition, exclusive of several private planes which utilized Commercial Airport. This was the heaviest air traffic since the 1931 show. Passengers came and went in 762 planes, many of the ships making several trips daily to surrounding cities to serve company officials and guests. Peak day at Municipal Airport saw 94 planes, carrying 443 passengers. American and Hanford ran double sections several times during the show to meet traffic demands.

CHARLES A. BANKS, of Vancouver, B. C., has been awarded the gold medal of the Mining and Metallurgical Society of America for successfully "applying aerial transportation to the development of remote mining regions." Harry T. Hamilton, president of the Society, made the award.

### Obituary

PROF. HUGO HERGESELL, 79, for years president of the German Aeronautical Society, later president of the International Commission of Atmospheric Research, died in Berlin June 5. He was credited with construction of most German-built dirigibles and was with Count Zeppelin on the latter's first ascent in Switzerland July 1, 1908.

BRIG. GEN. MILTON F. DAVIS, U. S. Army, retired, 73 years old, died May 31 at his home on the campus of New York Military Academy, of which he was president. Burial was at the U. S. Military Academy at West Point, from which he was graduated in 1890 as president of his class. He was a veteran of the Spanish-American War, the Philippine insurrection, and the World War. In 1907 he became mili-

## Bureau Report Says DST Fire Followed Failure of Cylinder Barrel

Plane Was Approaching Field for Forced Landing When It Struck Tree; Pilots Absolved of Blame; BAC and Line Seek to Redesign Diaphragm

In one of the most complete reports ever submitted, a Bureau of Air Commerce accident investigation board on June 10 stated that the crash of a United Air Lines DST eight miles east of Cleveland Airport on May 24, with loss of 10 lives, was caused by a fire in the right engine accessory section which resulted from the failure of a cylinder barrel and which was fed from the right engine oil supply.

The board placed First Pilot James L. Brandon and Second Pilot Austin S. Merrifield "beyond criticism in any decision that an immediate landing was a safer procedure than to attempt to continue to the Cleveland Airport." Both pilots enjoyed excellent professional reputations, the report said.

Number 3 cylinder barrel of the right engine failed, and caused a fire in the nacelle, the board stated, adding that the pilot apparently decided on an emergency landing when it became apparent that the fire could not be extinguished in flight. While maneuvering for this landing, the plane struck the top of a large oak tree.

In describing exactly how the cylinder barrel failed, the report stated: "On a subsequent down stroke of the piston, the skirt of the piston apparently caught the broken edge of the lower portion of the failed cylinder barrel and as a result of this sudden stop of the piston, the link rod piston pin bearing strap pulled loose permitting the link rod on its next up stroke to drive the piston against the head of the cylinder. This excessive upward travel of the piston lifted the upper portion of the cylinder and pulled the intake pipe out of the blower section. This also caused the exhaust pipe sleeve which connects the cylinder to the exhaust pipe to become canted, leaving an opening between the sleeve and the exhaust pipe, from which exhaust flame could escape.

"Exactly how the fire was ignited is indeterminable from available evidence and must remain a matter of conjecture. In tracing the fire from its origin through its progression, there is positive evidence of three separate although related stages, the first and second of which occurred in the air. The fire originated in the power section of the engine ahead of the diaphragm which separates the power section from the accessory section. The second and more serious stage of the fire occurred behind the diaphragm in the engine accessory section as a result of the initial fire in the power section. The final stage of the fire resulted from the bursting of the fuel tanks on or immediately after impact."

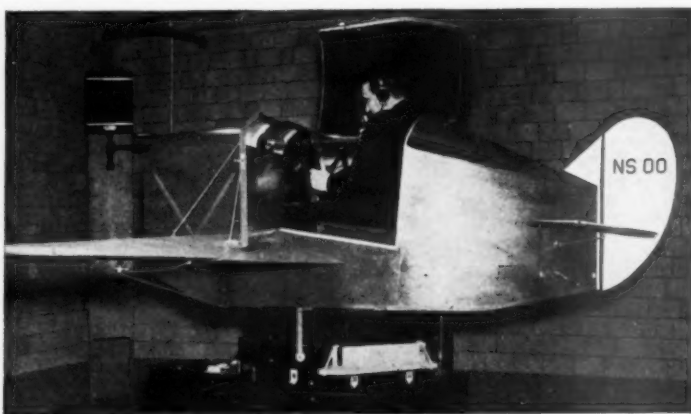
The progression of the fire through the diaphragm is unique in the history of airline operation, the report stated. Holes in the diaphragm are provided for the passage of oil lines, ignition wires and controls. In this case, the evidence indicated that sufficient flame was blown through one of the holes to burn through an oil line, resulting in a continuous oil fire.

"The board wishes to state that immediate steps have been taken both by the Department of Commerce and by the operator to develop a diaphragm for use between the power section and the accessory section of the engine which will prevent any fire from traveling from one to the other under similar circumstances," the report said.

First Pilot Brandon had a total of over 12,000 hours of flying experience, over 9,000 of which were with United or its predecessors. He had flown DST equipment since March, 1937, and had been assigned to the eastern division, Newark-Chicago, for approximately 7½ years. Second Pilot Merrifield and Stewardess Mildred A. Macek comprised the crew.

Members of the accident board were Bryan M. Jacobs, assistant director of the Bureau of Air Commerce; George W. Vest, chief of the BAC regulation and enforcement division, and Phil C. Salzman, airline maintenance inspector. Major Clarence D. Barnhill, commanding officer, 112th observation squadron of the Ohio National Guard, was the advisory member.

## The Governor Rides 'em Hard



Governor George H. Earle of Pennsylvania is the nation's No. 1 gubernatorial pilot. Recently he decided to take lessons in the state's Link trainer, as above photo indicates. What has the Pennsylvania airmen worried, however, is the fact that the Governor has been so rough while at the controls that the trainer has had to be repaired after each lesson.

## Contact Flight in Bad Weather Caused Lockheed Crash, BAC Says

A Bureau of Air Commerce accident investigation board on June 6 stated that the cause of the Lockheed "14" crash on May 16 near Saugus, Calif., killing nine persons, was "the continuation of contact flight through mountainous country and over sharply rising terrain into weather conditions that made further contact flight over the route in question impossible." The plane was being flown from Union Air Terminal, Burbank, Calif., to Las Vegas, Nev., where it was to have been delivered to Northwest Airlines. All persons aboard were non-pay passengers.

The board declared that "it is the general policy of the Lockheed Aircraft Corporation to make all delivery flights under conditions that permit visual contact operation, due to the possibility of marring the aircraft because of icing conditions which may be encountered during an instrument flight."

Other significant conclusions reported by the board were: representatives of the purchaser were eager to take off and complete delivery of the airplane; from the weather sequences and forecasts available prior to the time the airplane departed from Burbank, it was impossible for a contact flight to have been completed over the contemplated route; the first pilot apparently failed personally to investigate the available weather reports; the airplane was not flown at an altitude sufficient to clear all ground obstructions (which altitude would have necessitated instrument

### Biggest Yet

With the DC-4 still making its first tests, the Douglas Aircraft Company at Santa Monica has designs on its board for a Douglas ship two and a half times as big as the DC-4, to be completed and flown for tests by one year from this coming September. It's to be for the Air Corps. Already the company is getting inquiries—genuine ones—from airlines asking for data on transports four times as large as the DC-4.

## 2 DIE AT OAKLAND; NEW SPEED MARK

Ralph Johnson and Gus Gotch Killed; Ortmann Sets Record for 150-Mile Closed Course

Oakland, Calif., May 31—A new closed course world speed record of 265.5-mph. for 150 miles was set here yesterday by Earl Ortmann, Los Angeles flyer, in the first annual Pacific International Air Races, which were marked by the deaths of two pilots. The races, which started May 28, concluded yesterday.

Ortmann barely nosed out Colonel Roscoe Turner, who was clocked at 265.457-mph. The winner, who flew a Marcoux-Bromberg plane, received a trophy and \$5,000 in cash. Turner, Ray Moore and Art Chester received \$2,500, \$1,500 and \$1,000, respectively. The previous closed course record of 264-mph. was set by Michael Detroyat, French ace, in the 1936 Thompson Trophy race.

Ralph Johnson, west coast airplane distributor, was killed on May 28 when his plane crashed during a stunting exhibition. He was headed down for an inverted loop when the plane hit the ground nose first and burst into flames. On May 29, Gus Gotch, veteran Los Angeles race pilot, died when his plane dived into San Francisco Bay as he was making the second turn during the first lap of that day's race.

Anthony Le Vier, of Montebello, Calif., was the big winner on May 28 and 29. On the first day he averaged 249.3-mph. in a 75-mile contest to win the first prize of \$1,000. The next day he averaged 254-mph. for 100 miles and won \$2,000 prize money. He flew a Schoenfeldt Special.

Paul Mantz and Frank Clarke, Hollywood stunt flyers, entertained the crowds during the three-day meet. Navy flyers from the Oakland Naval Reserve base and Marine Reserve Scouting Squadron 8 engaged in formation flying over the field.

### I. C. C.

#### Pending Air Mail Dockets

A.M.D. Nos. 1-16-18-Air Mail Compensation. Examiner preparing report.  
A.M.D. No. 15-Eastern Air Lines vs. American Airlines. Indefinitely postponed.

A.M.D. Nos. 17-30-36-TWA. Hearing to be resumed on date to be set.

A.M.D. No. 23-Air Mail Rates for route No. 8, operated by Chicago and Southern Air Lines, Inc. Examiner preparing report.

A.M.D. No. 26-Eastern Air Lines base rate. Exceptions to proposed report due. Final report to follow.

A.M.D. No. 32-Air Mail Rates for route No. 26, operated by Hanford Airlines. Examiner preparing report.

A.M.D. No. 35-Boston-Maine Airways, Inc., Base Rate Mileage. Tentative report issued.

A.M.D. No. 38-Western Air Express Corp., Base Rate Mileage. Examiner preparing report.

A.M.D. No. 40-Varney Air Lines, Rate Review. Examiner preparing report.

A.M.D. No. 41-Continental Air Lines, Investigation of Rates. Examiner preparing report.

A.M.D. No. 42-Northwest Airlines, Rate Review. Tentative report issued. Final report to follow filing of exceptions.

A.M.D. No. 43-Northwest Airlines, Investigation of Rates. No date set for hearing.

A.M.D. No. 44-American Airlines, 1935-1936 Rate Review. Tentative report issued. Final report to follow filing of exceptions.

A.M.D. No. 45-United Air Lines, Rate Review. Tentative report issued. Final report to follow filing of exceptions.

#### Windsor To Get \$100,000

Windsor, Ont., June 4—J. A. Wilson, controller of civil aviation, told authorities here last night that the government will spend about \$100,000 on development of a modern airport here when a suitable site is obtained.

## Takes to Air



Because he handles Post Office air mail cases almost every day, William C. O'Brien, lawyer in the Solicitor's Department in Washington decided he should know something about flying an airplane, and has secured a student permit. Lessons have already started at Beacon Airport, near Washington.

"I have to handle rate cases, air mail bids, and requests for extensions, every day," O'Brien confided, "so I've decided to find out what it is all about. I get a bigger kick out of my flying lessons than anything else I do." To show how responsive he is to his surroundings, O'Brien said two years ago he took art lessons while handling a great many art cases.

The 48-year-old Irishman wouldn't venture a guess as to when he will solo however. When he does, and has accumulated a few hours in the air, he plans to buy a plane of his own.

O'Brien believes that everyone should take flying lessons even if he does not plan to enter aviation as a profession. The Post Office lawyer has two sons, 13 and 15 years old, who are going to learn to fly soon.

## I. C. C. Approves PCA's Single Bid on Detroit-Sault Ste. Marie Route

Pennsylvania-Central Airlines' single bid on the recently advertised Detroit-Sault Ste. Marie route was approved by the Interstate Commerce Commission on June 4. The bid was referred to the I.C.C. for "direction" following Post Office rejection of R. Stuart Weeks' 28 1/2¢ bid on the grounds that it was not in proper legal form. Penn-Central's bid was 33 1/3¢ per mile.

"Considering the territory covered by the proposed route, the amount of passenger and express traffic which may be reasonably anticipated, and the rates fixed for routes 14 and 32, now operated by the bidder, it does not appear from the facts before us that such bid is excessive, nor is there a suggestion from any source that it will be excessive," the I.C.C. stated.

Penn-Central's balance sheet, submitted with the proposal, showed total current assets of \$194,268 and total current liabilities of \$143,303, and also showed total assets of \$850,225, including \$238,872 for going-concern value. The liability side showed capital stock of \$250,000, and capital surplus \$685,879, less a debit balance as of Jan. 1, 1938, of \$181,270, and oper-

## I. C. C. Examiner Recommends Higher Base Mileage for Boston-Maine

F. A. Law, Jr., Interstate Commerce Commission examiner, in a proposed report issued recently, recommended that the base mileage on AM27, operated by Boston-Maine Airways, be increased from 24,000 to 38,500 miles at 33 1/3¢ per mile. AM27 at present operates between Boston and Caribou, Me., and Boston and Montreal.

The original route was approximately 409 miles in length, but extensions granted by the Post Office later increased this to 650 miles. Because of the 24,000-mile base, the original route came under the 180% classification, i.e., a route on which the mileage substantially equals one round trip a day over the period of one month. If mileage flown exceeds 180%, the pay is automatically decreased at the rate of one cent for every 10% increase.

In computing the total mileage flown per month, the Post Office included extensions, with the result that during two months, Boston-Maine's mail pay was reduced 2¢ per mile. Examiner Law in his proposed report, pointed out that the I.C.C. had never been called upon to set a rate of pay for the extensions, such pay being the result of an agreement between the carrier and the P. O.

Because of this fact, the Commission does not feel that the extensions should have been considered when the total mileage per month was computed. Without the extensions, the carrier never exceeded the 180% limit and should not, therefore, have received less mail pay.

Examiner Law stated that "the mileage over such extensions can not be taken into consideration in determining the rate for application to the route itself." Continuing, he said, "As to service over the original route, the Commission should find that to the extent the rates of compensation paid to the complainant for the transportation of air mail by airplane over route 27 were less than rates ascertained in the manner described, they were less than the rates applicable under the Commission's order."

If the proposed report is put into effect by the Commission, Boston-Maine will be entitled to collect additional pay from the Post Office for the two

months during which its rate was cut.

In justifying payment of the 33 1/3¢ maximum, Law stated that for the fiscal year ended June 30, 1937, when incidental revenues totaled over \$16,000, complainant and its predecessor together earned a net income from operations of about \$6,400.

"Subsequent to that date," the examiner said, "and up to Jan. 31, 1938, the carrier did no better, the record showing that notwithstanding net incidental revenues of more than \$4,000 in that period it sustained a deficit in net revenue from operations of over \$5,600. Exclusion of losses which may have been sustained from the minor amount of exclusive passenger mileage said to have been flown, less than 4% of the total mileage, would not materially affect the result.

"There is, therefore, no indicated reason for a modification of the maximum rate of compensation heretofore published for transportation of air mail by airplane on this route."

## C & S Awarded 3-Cent Mail Pay Increase

The Interstate Commerce Commission on June 1 increased the mail pay on Chicago and Southern's AM8, Chicago to New Orleans, from 29¢ to 32¢ per mile for a base mileage of 110,000 miles per month. The increase is retroactive to May 28, 1937. No exceptions were filed to the examiner's proposed report, submitted on May 3 (see AMERICAN AVIATION, May 1). Commissioners McManamy, Mahaffie and Miller issued the final report.

In their conclusions, the commissioners stated: "Since the present rates were prescribed by the Commission, operating and traffic conditions have made it necessary for the carrier to secure more expensive flying equipment. Direct competition is encountered from American Airlines, between Chicago and St. Louis, and between Chicago and Memphis by a circuitous route. Railroads also compete with all parts of the route for passenger and express traffic. While operating expenses have been increased by higher charges for depreciation on the more expensive equipment, the operating losses have been reduced due to the more favorable results from passenger operations."

It was also pointed out that on June 1, 1937, the Postmaster General changed C&S's night schedules so that the south bound plane arrives at New Orleans at 3:18 a.m., and the north bound plane reaches Chicago at 3:21 a.m. They formerly arrived at 11:38 p.m. and 11:35 p.m., respectively. These changes, the Commission states, have caused more cancellations because of fog and have also caused a drop in passenger revenues.

### Bureau Appointments Okayed

During the week of May 23-28, approval was obtained for 14 new appointments: 6 assistant airways keepers, 5 junior radio operators, 1 junior general mechanic, and 2 assistant radio engineers.

### P. O. Awards 3 Routes

The Post Office Department has awarded contracts to the lowest bidders on three recently advertised air mail routes, as follows: Phoenix, Ariz., to Las Vegas, Nev., TWA, 31¢ per mile; Jacksonville, Fla., to New Orleans, La., National Airlines, Inc., 19 1/2¢ per mile; and Tampa, Fla., to Memphis, Tenn., and Tallahassee, Fla., to Atlanta, Ga., Eastern Air Lines, Inc., 17¢ per mile. Lengths of the three routes are 274, 531 and 948 miles, respectively.

## British Visitor



Air Commander James G. Weir, (left), leader of the British delegation recently in this country investigating possibilities of aircraft purchases here, is met by Donald Douglas (right), president of Douglas Aircraft Corp., on arrival in Los Angeles. (American Airlines photo).

### Shreveport Officers Elected

Shreveport, La., May 28—The local unit of the W.N.A.A. has elected the following officers: Mrs. Edward H. Ross, president; Miss Tiny Hendrick, vice-president; Mrs. Nat Pedro, secretary; Mrs. Harlan Beene, treasurer. Miss Marjorie Goodwin is the retiring president.

### Oregon Airport Completed

Lakeview, Ore., May 29—Members of the Sportsmen Pilots of Oregon and private flyers in this vicinity participated today in the dedication of the new airport here. The main body of flyers came from Portland.

## MEMO

the wise manufacturer who depends on outside financing to build his company into a strong institution knows that the stockbroker is a vital cog in any financing program and that the stock broker is a human being who often judges a company by its advertising and by its acumen in selecting the proper advertising media.

★ ★

the wise manufacturer who is anxious to have his company in a front position in the industry of which it is a part knows that he must direct a certain amount of dignified institutional advertising to the financial men who make the expansion of his company possible.

★ ★

often one meets a financial man who is "tops" in his class who has doubts about the value of aviation stocks because the aviation industry has been so negligent in its use of institutional advertising.

★ ★

those business men in aviation who are smart in the ways of psychology and who have the best interests of their company and the industry at stake know that the financial men who deal in aviation securities read only one aviation magazine. They know that with financial men AMERICAN AVIATION is not only tops but is entirely alone in this specialized field.

## BRITISH PLANNING NEW AIR SERVICES

Recently Named Air Secretary Outlines Program For Disposal Of Annual Subsidy of 3,000,000 Pounds

World-wide expansion of British airlines and encouragement to domestic carriers and aircraft manufacturers were outlined for the future when Sir Kingsley Wood made his first speech as Secretary of State for Air. The government several months ago announced its decision to increase the state's annual subsidy to air transport from 1,500,000 pounds to 3,000,000 pounds.

Summarized, the secretary's program as revealed to the House of Commons, involves (1) Speeding up and augmenting the Empire Service; (2) Direct financial aid to approved airlines in Great Britain; (3) Inauguration of "first class" service connecting London with European capitals not now served by British airlines; (4) Encouraging British aircraft makers by "approving" for subsidy aid those lines using British equipment.

The greater part of 1,000,000 pounds will be spent on the Empire service, moving up schedules, adding flights to Australia and New Zealand, "furthering" the trans-Pacific project, developing activities in the West Indies, and furnishing scheduled service to Canada.

About 100,000 pounds a year will be available to local services in Great Britain, each company to receive a sum in relation to operating efficiency and the number of approved British aircraft it operates. An additional provision is that "so far as practicable," 75% of the pilots employed shall be enrolled in the air force reserve.

Citing competition of heavily subsidized foreign lines, the speaker foresaw establishment of air service with all European capitals not now served by British companies, involving daily flights to Berlin, Amsterdam, Prague, Vienna, Budapest, Oslo, Lisbon, and Geneva. Geneva schedules at present are in operation only part of each year. These services would receive 400,000 pounds annually, it was indicated.

Every route flown by British operators must depend exclusively on British aircraft, the secretary emphasized, referring to new planes now planned or under construction. One is the De Havilland 95, high-wing twin-engine monoplane carrying 12 to 18 passengers at a cruising speed of more than 200-mph., the first to be completed early in 1939. Manufacturers also have been asked to plan a plane carrying 10-passengers for 1,800 miles for European service, and a four engine monoplane for trans-Atlantic flights.

## PAA INTO SAN DIEGO?

Traffic Manager Gives Broad Hint of Southward Expansion

San Diego, May 25—A prediction that San Diego will become a permanent terminus for Pan American Airways in its trans-Pacific service was made here today by Charles L. R. Smith, assistant to the traffic manager in the Los Angeles PAA office in a talk before the Kiwanis Club.

"With the development of Pan American Airways' trans-Pacific service, we soon shall see San Diego connected, just as San Francisco now is, with Honolulu and the Orient by air. The prediction of an early establishment of a permanent base in San Diego is based on the increased traffic over our trans-Pacific route."

San Diego has already been declared as an emergency landing place for PAA when clippers cannot get into San Pedro or San Francisco.

## Press Reports of Crash Incorrect, Beech Corp. Charges; BAC Agrees

Answering false newspaper accounts which attributed the crash of a Beechcraft plane near Fairhaven, N. J., on June 4, killing Baron Maximilian von Romberg, to a mid-air engine explosion, John P. Gaty, sales manager of the Beech Aircraft Corporation, recently sent every Beechcraft owner a two-page letter explaining the exact cause of the accident. The plane flew into the Shrewsbury River with the motor apparently full on. Gaty's explanation was substantiated by the Bureau of Air Commerce report of the accident, released June 13.

The BAC report stated that the probable cause of the accident was "an unexpected change in the weather which made it difficult for the pilot to see or realize his proximity to the water." Ceiling at the time of the crash was 200-400 ft., low fog scud, light rain, wind calm.

Witnesses, Gaty stated, saw the plane break through the clouds in a shallow power dive, motor functioning normally, and fly into the water. That Baron von Romberg mistook the water for fog is seen in the fact that no attempt was made to flatten out the descent path of the plane, he said.

"It appears from available evidence," the BAC report said, "that the pilot, while flying low over the water, became confused due to extremely low ceiling with fog scud and rain and

either lost control of the aircraft at an altitude insufficient to permit recovery or flew into the water beneath him without being able to distinguish its presence. It is a known fact that either of these can easily occur to an experienced pilot when attempting contact flying under the weather conditions which surrounded this accident. . . . The pilot was located by means of his parachute which had opened, apparently due to impact, and was floating on the water at the scene."

This latter statement debunks newspaper stories which reported that the pilot attempted to bail out but that his parachute caught on the tail surfaces of the plane and that he was dragged down with the ship.

"It might be fitting at this time to call to your attention the fact that if you ever become involved in bad weather and have to fly blind without any great amount of practice or experience, it is well to extend the landing gear and trim the airplane for level flight at decreased speed," Gaty said in concluding his letter. "The extra drag offered by the wheels makes it almost impossible to go into a high speed dive by accident, and renders the airplane much more controllable in turbulent air. Only a matter of a few seconds is required to retract the wheels, either for the purpose of rapidly climbing or for the purpose of making an emergency belly landing."

## Army's Goodwill Flyers Honored

The Aero Club of Washington on June 2 held a luncheon in honor of 11 of the U. S. Army Air Corps flyers who made the recent goodwill flight to Buenos Aires, Argentina, in six Boeing "Flying Fortresses." Lieut. Col. Robert Olds, commander of the flight, was guest speaker.

In addition to Lieut. Col. Olds, the following members of the flight were present and spoke briefly: Major V. J. Meloy, Major H. A. George, Major C. V. Haynes, Major F. R. McReynolds, Capt. A. Y. Smith, Capt. A. L. Harvey, Capt. N. B. Harding, Lieut. D. R. Gibbs, Lieut. C. L. LeMay and Lieut. W. H. Higgins.

All except Olds flew to Washington from Langley Field in three of the B-17's. The luncheon had originally been scheduled for May 26, but was postponed when the officers were unable to fly because of bad weather.

Among those present at the luncheon were the following:

Maj. Gen. F. M. Andrews; Brig. Gen. H. H. Arnold; Lieut. Col. Ira Eaker; Congressman Clarence Lea of California; Congressman Andrew May of Kentucky; Congressman Melvin Maas of Minnesota; Charles P. Graddick, superintendent of air mail; Major A. B. McMullen, Richard Boutelle and L. V. Kerber of the Bureau of Air Commerce; C. C. Thompson, assistant to the president of United Air Lines; James Murray, vice-president, Boeing Airplane Co.; Dr. George Lewis, National Advisory Committee for Aeronautics; Lowell Lee, district traffic manager, Pan American Airways; N. B. Haley, L. R. Inwood and Myron Witters of the Interstate Commerce Commission; Charles Parker, Aeronautical Chamber of Commerce; Robert Lees, Maritime Commission, and Clarence Miller, Washington Board of Trade.

JOHN AMUNDSEN, former pilot for Anchorage Airways in Anchorage and Lyle Airways in Gakona, Alaska, has joined the Alaska Air Transport company staff at Juneau. It was announced May 20 by Chief Pilot SHELL SIMMONS.

## Canada to Use Inland Route N. of Vancouver

Ottawa, June 2—The Dominion government has received two bids for the new Vancouver-Yukon air mail route, which will be by way of Fort St. John rather than directly along the Pacific coast line, W. D. Euler, acting postmaster-general, said today. Chief reason for taking the route inland was to avoid as much mountain flying as possible, it was said.

The official declared that the post-office department would pay TCA 60¢ a mile for every mile traveled by a plane carrying mail. Meanwhile, at a Canadian Manufacturers' Assn. meeting, Philip G. Johnson, vice-president in charge of TCA operations, said the basic passenger fare on company lines would be between 5.5¢ and 6¢ a mile. The Rocky Mountain hop will require 2-hrs. 20-min., and planes will fly at 12,000-ft.

The *Edmonton Journal*, commenting editorially, says: All that is needed now to establish the "inside route" from Lethbridge and points south right to Alaska is an agreement between Ottawa and Washington permitting Alberta airplanes to connect with United States lines, both in Montana and Alaska. Whether under such an agreement Canadian airplanes are allowed to fly into United States territory or United States airplanes make the connection on Canadian territory is immaterial in view of the larger issue at stake, the establishment of a through air line from deep in the western states to points in Alaska. As a matter of fact, Alaska air lines already are operating into the Yukon territory, making connection at Whitehorse for Juneau and Fairbanks.

## Loening to Berlin Meeting

Grover Loening, designer, engineer, and former aeronautical adviser to the U. S. Maritime Commission, will be the American delegate to the convention of the Federation Aeronautique Internationale at Berlin, Germany, June 23. He sailed June 3 with Mrs. Loening.

## CANADA

### All Letters to Go by Air In 10 Years—Postmaster

Calgary, Alberta, June 1—E. J. White, dominion president, told other members assembled today at a convention of the Postmaster's Association of Canada, "The whole future of mail service in Canada depends on aerial transportation. I can foresee in 10 years' time all first class mail in Canada being transported through the air."

Regular air mail service between Winnipeg and Vancouver will go into effect sometime next month, the postmasters were told.

### Halifax Women Organize

Halifax, Nova Scotia, June 2—Stenographers, high school students and clerks, 17 members in all, have joined a women's flying club organized here by Miss Melda Walters, captain of the Trinity Girl Guides and associated with that movement for more than 15 years. Miss Walters is taking lessons at Halifax Airport and the women's squadron meets once a week. Their study will be confined to ground work for several months. Women can and should be trained for emergencies, she said.

### Ontario Flyers to Toledo

Windsor, Ont., June 5—Nineteen planes returned here today after a goodwill visit to Toledo, O., where the pilots, members of the Canadian Flying Clubs, were guests of the Toledo Flying Club. Two of the planes were government craft stationed regularly at Ottawa. The expedition left here yesterday, repaying a visit made by Toledo flyers to London, Ont., last year.

### Canadian Airport Grant

Ottawa, May 28—The Canadian government will make available \$800,000 additional funds for airports and another \$500,000 as grants to municipalities wishing to construct them, it was announced today. Trans-Canada Air Lines will spend the \$800,000 on ports along its route.

### North Resumes Flying Schedule

Edmonton, Alberta, June 3—Northland summer flying is in full swing following a lull during spring break-up. Pontoon equipped planes already have made trips to and from Fort Smith, McMurray, Yellowknife, and Fort Resolution. United Air Transport wheel-equipped craft are also carrying passengers, freight, express and mail to various north Canada points.

### B. C. Service Opens

Vancouver, B. C., May 30—Island Airways has opened twice daily service between this city and Victoria, B. C., using a four passenger Waco. A Boeing flying boat may be bought later, according to W. J. Dyson, company head. Dyson is backed by Victoria business men. Terence Finney is chief pilot. Both Dyson and Finney have been associated with aviation for the last 15 years. Departures from Victoria are at 9 a.m. and 5:30 p.m., and flights leave Vancouver at 9:45 a.m. and 6:30 p.m. "We are booked up well ahead," Walter Miles, Victoria local agent, reported.

### Vancouver School To Build

Vancouver, B. C., June 9—Officials of Brisbane Aviation Co., Ltd., only commercial aircraft engineering school in western Canada, have announced plans for a new building. The ground school now is located in the seaplane building. For a year the school was conducted at High River, Alberta, moving here a year ago. About 70 students are enrolled.

## I. C. C. Finds UAL Profit Reasonable on 3 Routes During 1934-36 Period

An Interstate Commerce Commission tentative report, issued recently by Examiner Lucian Jordan, stated that no unreasonable profit was derived by United Air Lines, Inc., or its successor, United Air Lines Transport Corporation, on routes 1, 11 and 12 for the period May 1, 1934, to July 31, 1936. AM1 operates between Newark, N. J., and Oakland, Calif.; AM11, Seattle, Wash., and San Diego, Calif., and AM12, Salt Lake City, Utah, and Spokane, Wash., and Salt Lake City and Seattle, Wash.

Rates paid over the three routes since Mar. 1, 1935, are as follows: AM1, 31c per airplane mile, applicable to a base mileage of 500,000 miles per month; AM11, 27c for a base of 170,000 miles, and AM12, 33 1/3c for a base of 60,000 miles. These rates are for 300 lbs. of mail or less. Automatic changes are provided for variations in the mileages flown and increases in mail loads.

At the end of the audit period, United's investment in real property and equipment was \$6,218,046, and reserves for depreciation were \$3,610,872, resulting in net book value of \$2,607,174. Net book value of property other than flying equipment was \$1,054,732. At this time the carrier owned 77 planes, 46 of which were Boeing 247-D's and 207 engines.

During the audit period, 22,885,965 revenue miles were flown over AM1, of which 15,467,537 were in mail-passenger service and 7,418,428 in exclusive passenger and weight-credit service. A total of 224,157 revenue passengers were transported 136,715,825 revenue-passenger miles. The mail carried amounted to 8,397,007 lbs. and the pound-miles flown totaled 6,441,345,811. On AM11, 8,019,045 revenue miles were flown, 3,928,351 in mail-passenger service and 4,090,694 in exclusive passenger service. A total of 150,872 revenue passengers were carried 51,515,369 revenue-passenger miles. The mail transported totaled 1,624,611 lbs., and pound-miles flown aggregated 748,578,495. AM12 showed 2,866,348 revenue miles of which 2,749,870 were in mail-passenger and 116,478 in exclusive passenger service. Revenue passengers totaled 27,293 and revenue-passenger miles 9,680,620. In

the mail service, 865,253 lbs. were carried 498,519,480 pound-miles.

Operating revenues on AM1 during the period of the audit were \$13,693,063. Mail compensation totaled \$4,715,237, passenger revenue, \$7,733,910, and express and baggage, \$595,000 and \$107,556, respectively. Operating expenses on AM1 were \$13,675,615, taxes totaled \$179,840 and uncollectible revenues \$11,280.

AM11 showed operating revenues of \$4,002,476, of which mail compensation amounted to \$1,033,438; passenger revenue, \$2,705,506; express, \$91,303, and excess baggage, \$26,177. Operating expenses on the route were \$4,284,187, which exceeds revenues by \$281,711.

On AM12, operating revenues were \$1,502,783, mail compensation and passenger revenues being \$931,157 and \$516,547, respectively. Revenue from transportation of express and excess baggage were \$91,303 and \$26,177, respectively. Operating expenses amounted to \$1,641,677, exceeding operating revenues by \$138,893.

The only route to show a profit during the audit period was AM1, and this was only between Mar. 1, 1935 and July 31, 1936, when net income from operations totaled \$510,739. Assuming that the non-mail service should bear a proportionate share of all operating expenses, the net income from mail service would amount to approximately 17.3% of the net book value of the property used, including a reasonable allowance for working capital, Jordan concluded. If non-mail operating expenses be allocated on the basis of a proportionate share of direct aircraft operating expenses the net income percentage would be 8.5%, and if allocated as recommended by the carrier, it would be 9.4%.

"It is deemed probable," Jordan further stated, "that the percentages of net income on the several bases discussed above would be lower if compared with the value of the carrier's property rather than its net book value plus an allowance for working capital."

TONY SCHWAMM has purchased a three-place Curtiss-Robin seaplane and has flown to Alaska to establish an air service at Petersburg. Last year he flew a 22-passenger Sikorsky to Alaska.

## NEW VICKERS PRESIDENT

J. E. Labelle Succeeds J. McL. Stephen; 30% of Profits from Aviation in '37

Montreal, June 1—J. Edouard Labelle today was elected president of Canadian Vickers, Ltd., succeeding acting president J. McL. Stephen. Stephen has been elected first vice president and N. A. Timmins, Jr. is second vice president.

The retiring president reported that 30% of the 1937 profits were derived from aviation sales. While no definite plans have been made for filling orders for British aircraft, he said the company was expecting "some" business from England. He noted that no Canadian company at present manufactures airplane motors, all engines used being imported either from the U. S. or Great Britain. New directors are Rene Labelle and John I. Rankin.

## Boeing Into Vancouver?

Vancouver, June 1—The Boeing Aircraft Co., under the name of Anglo-Canadian Co., is said to be one of two firms seeking information on sites near Sea Island airport here for possible construction of factories. The other company, of Canadian management, has not been identified.

## Wright Named Breeze Treasurer

Thomas B. Wright was elected treasurer of Breeze Corps., June 1, succeeding J. T. Mascuch, who was both secretary and treasurer. Mascuch will now continue as secretary.

## Douglas Listing in Holland

Douglas Aircraft Co. certificates of no par value common shares will be listed on the Amsterdam, Holland, stock market shortly, it has been announced.

JUNIOR BIRDMEN has appointed as general counsel Samuel P. Gilman, former vice-president of the American Bar Association and present counsel to the New York Board of Trade. Associate general counsel is Herbert J. DeVarco.

## Sikorsky Bid Is Low

The Treasury Department, June 9, announced that Sikorsky Aircraft Division of United Aircraft Corp. appeared to be low bidder on 10 Coast Guard twin-motored monoplanes, with quotations of \$116,465 each for all 10 ships, or \$129,590 for one.

## 16 Radio Contracts

### Announced by BAC

The following contracts for radio antennae and buildings have been awarded by the Bureau of Air Commerce, subject to final approval by the Secretary of Commerce: Florence, S. C., and Savannah, Ga., Americus Engineering & Contracting Co., \$7,831.50; Mt. Shasta, Calif., Edward Green, \$5,803.00; Chicago, E. H. Marhofer Co., \$13,454.50; Spokane, Wash., divided between Contracting & Sales Co., \$7,007.00, and Charles Dahlgren, \$2,849.00; Meridian, Miss., and Corpus Christi, Tex., divided between Chamberlain & Strain, \$8,270.75, Charles Ranch, \$2,616.95, and Wright & Lopez, \$11,174.00.

Silver Lake and Palmdale, Calif., former to Oscar L. Jackson, \$12,560.90, latter to R. J. Kingston, \$10,576.70; Charlotte, N. C., Macon, Ga., and Daytona Beach, Fla., Americus Engineering & Contracting Co., \$11,431.50; Modesto, Calif., Communication Engineering Industries, \$6,990.95; Alma, Ga., and Melbourne, Fla., H. B. Nelson Construction Co., \$20,359.13, and Plymouth, Utah, John Bernston, \$11,480.90.

Following are low bidders on contracts not yet awarded: Tyler, Tex., Lemcke Construction Co., \$3,897.65; Tampa, Fla., North American Construction Co., \$10,557.00; Goshen, Ind., Melvin F. Burgess, \$15,464.70; Portland, Ore., Roy E. Smith, \$10,477.00, and Red Bluff, Calif., Wickes Engineering & Construction Co., \$10,093.40.

## Prop Company for Mt. Clemens

Mt. Clemens, Mich., May 27—Production is expected to start at once at Supreme Propeller Co. following its removal here. Wooden props will be turned out immediately, and it is hoped to start manufacture of a new hollow-steel product for sport planes with horse-power up to 200, said N. J. Stone, manager.

## Firm Opens Chicago Branch

Aeronautical Radio Co., Roosevelt Field, has opened its first branch at Chicago Municipal Airport, in the Air Associates hangar at 5300 West 63d St. Dan Foote, for years associated with airline radio work, formerly with Northwest, TWA and Eastern, is in charge.

## United Aircraft Dividend

United Aircraft Corp. on May 10 declared a dividend of 30¢ a share on the capital stock of the company. The dividend will be payable on June 15 to stockholders of record at close of business on June 1. As of recent date there were 2,531,482 shares of capital stock which will be outstanding when all exchanges of common stock of United Aircraft & Transport Corp. have been effected.

## New C-W Vice-Presidents

New York, June 3—Curtiss Wright Corp. today announced appointment as vice presidents of Edward E. Wyman and William F. Spaulding. Mr. Wyman has been assistant to Juan T. Trippe, president of Pan American Airways, for 10 years. Mr. Goulding joined C-W in 1929. Both were World War flyers.

## Fleet Factory at Top Speed

Edmonton, Alberta, May 30—Fleet Aircraft, Ltd., Fort Erie, Ont., has been working at capacity recently delivering about a plane a day for export. W. J. (Jack) Sanderson, revealed today. The firm has also been active building craft for the Royal Canadian Air Force, he said.

Scheduled Airline Operations Statistics for 1937

Operator	Miles Flown	Passengers Carried	Pass. Miles Flown	Express Lbs.	Express Lb. Miles	Mail Lb. Miles Flown	Mail Payments
United Air Lines	16,460,697	237,378	117,718,305	2,253,849	1,544,378,236	4,628,076,841	3,265,566.95
American Airlines	15,700,956	334,843	139,075,256	2,049,179	1,305,907,849	2,803,892,872	2,772,705.52
TWA	9,317,226	112,892	81,729,193	418,382	517,969,390	2,569,568,432	1,702,097.43
Eastern Air Lines	7,648,314	143,490	63,918,997	683,614	397,935,529	1,317,192,578	1,364,356.33
Northwest Airlines	4,302,060	42,937	18,949,302	231,741	110,394,731	838,742,491	1,047,838.16
Branch Airways	2,441,407	35,545	12,177,170	223,861	109,514,515	374,535,915	521,941.36
Penn.-Central	2,417,988	74,262	14,215,915	351,470	72,921,353	149,952,154	399,957.53
Western Air Express	1,906,607	25,843	9,243,293	386,400	154,349,188	374,519,752	467,664.94
** National Parks Airw.—7	374,313	3,456	1,000,945	12,771	3,559,034	19,936,730	122,962.97
Chl. & Southern	1,341,019	15,081	6,094,188	88,481	39,934,669	109,182,885	340,172.82
Delta Air Corp.	1,254,502	15,147	4,451,554	40,845	17,119,499	96,444,368	331,686.51
Harford Airlines	1,052,928	9,927	2,617,597	50,108	10,577,209	49,776,167	250,841.60
Boston-Maine Airways	473,142	13,295	1,914,282	16,180	2,207,293	8,882,494	142,982.97
Wyoming Air Service—6	468,733	5,163	956,660	28,248	4,685,636	19,429,937	133,994.39
Continental Air Lines	413,620	2,192	768,752	7,157	2,262,028	15,743,845	120,449.08
National Airlines	285,596	3,444	609,075	10,410	1,655,311	16,875,463	69,882.17
Wilmington-Catalina	126,860	25,353	758,570	152,825	4,584,850	.....	.....
Atlantic & Gulf Coast—4	77,349	402	103,940	.....	.....	.....	.....
Grand Canyon Airlines—9½	53,125	1,302	219,121	.....	.....	.....	.....
Airline Feeder System—3	38,397	403	44,250	.....	.....	.....	.....
Condor Air Lines—7	35,800	352	36,206	121,448	12,184,800	.....	.....
<b>Total Domestic</b>	<b>66,190,639</b>	<b>1,102,707</b>	<b>476,603,165</b>	<b>7,127,369</b>	<b>43,121,141,120</b>	<b>13,392,752,924</b>	<b>13,055,100.73</b>
Pan American Airways	8,687,980	138,479	60,435,061	1,573,571	.....	.....	.....
Pan American-Grace	1,925,864	10,967	11,082,467	206,264	.....	.....	.....
Canadian Colonial	302,228	5,427	1,507,714	6,863	.....	.....	.....
<b>Total Foreign</b>	<b>10,924,656</b>	<b>164,873</b>	<b>73,025,242</b>	<b>1,786,698</b>	.....	.....	<b>* 8,194,068.90</b>
<b>Grand Total</b>	<b>77,115,295</b>	<b>1,267,580</b>	<b>549,628,407</b>	<b>8,914,067</b>	.....	.....	<b>21,294,215.14</b>

\* Does not include Revenue from mail carried under contracts with other Governments.

\*\* National Parks Airways is now part of Western Air Express System.

Figures following name of company indicate number of months this report covers.

## Aero Chamber Reports 1,053 Craft Delivered In First Four Months

New York, June 12—Sales figures compiled by the Aeronautical Chamber of Commerce show that during the first four months of 1938 1,053 planes, valued at \$24,926,141 were delivered, of which 101, valued at \$7,818,570, were built for export. The values do not include engines.

All planes, engines and spare parts delivered during the period were valued at \$46,140,702, comparing with \$30,491,501 during the corresponding four months last year. Military planes delivered totaled 454, valued at \$18,836,347, less engines, and commercial plane deliveries totaled 599, valued at \$6,089,794, less engines. Military engines totaled 836, valued at \$6,023,296, and commercial engines amounted to 1,185, valued at \$4,501,072. Deliveries of planes and engine spare parts totaled \$10,690,193.

## ROOSEVELT FIELD INCOME

### Final Statement For 1937, Filed With SEC, Augments Early Report

Supplementing the net income report for 1937 of \$979 for Roosevelt Field, published in AMERICAN AVIATION Mar. 1, the financial statement recently filed with the Securities & Exchange Commission reveals field and concession revenue for the year ending Dec. 31, 1937 was \$110,947.62; flight revenue, \$3,147.75; aviation school revenue, \$85,977.09; interest and discount, \$9,407.30; miscellaneous revenue, \$344.86.

Charges: general and administrative, (including sales and wages, \$18,223.83, and legal services of \$3,210.40 less \$4,827.78 charged to flying and aviation school operations), \$21,144.71; field and storage hangar operations (including salaries and wages of \$10,689.70), \$18,935.81; field maintenance (including grounds \$5,818.418 and buildings and equipment \$24,256.14), \$37,261.20; flying operations (including salaries and wages of \$689.86, and portion of general and administrative \$154.99), \$2,240.24; aviation school operations (including salaries and wages of \$30,437.37 and portion of general and administrative, \$4,672.79), \$68,056.98; taxes, \$21,098.60; insurance, buildings and equipment, \$17,105.72. Total charges, \$185,843.26. Net income before depreciation and doubtful accounts, \$23,981.36. Depreciation was set at \$14,886.45 and doubtful accounts at \$8,115.65.

A total of 500,000 shares are authorized; 360,000 are issued, and 61,300 are in treasury. Aviation Corporation owns 60,000 shares, common stock, or 20.09%.

Officers are Grover Loening, Chairman of the Board; W. D. Guthrie, president and treasurer; A. C. Kennedy, vice-president and secretary; W. F. Stuchel, assistant treasurer; John W. Hanes, formerly chairman of the board and a director, resigned Dec. 16. Directors are: W. H. Beal, LaMotte Cohn, C. Coburn Darling, Grosvenor Farwell, Harold Kondolf, Albert P. Loening, William Dewey Loucks, Seth Low, L. B. Manning, J. A. Richards, William B. Scarborough, B. A. Tompkins.

Assets totaled \$3,866,331.52, with cash of \$88,994.30, marketable securities of \$50,024.50, bond and mortgage loan of \$75,000, and investment in capital stocks of Motor Development Corp. (at cost) of \$67,500. Current liabilities were \$6,659.56, capital stock \$6,659.56, and paid in surplus (no change during 1937) \$2,284,773.25. Two 100% owned subsidiaries, Roosevelt Aviation School, Inc., and Roosevelt Flying Corp., were merged with the parent June 30, 1937.

## Line Orders Electras

Los Angeles, June 7—Lockheed Aircraft Corp. has announced receipt of an order for two Electras from Union Airways, Ltd., of Australia totaling approximately \$120,000.

## Great Britain Orders 400 Planes

Two U. S. manufacturers are to be awarded contracts for a total of 400 airplanes from Great Britain, according to reports from London. Great Britain is to purchase 200 aircraft of the reconnaissance type—revised Lockheed 14's, from the Lockheed Aircraft Corp., Burbank, Calif., and 200 advanced trainers from North American Aviation, Inc., Inglewood, Calif. Cost of the ships is placed at \$25,000,000 or above. This is the largest foreign order ever received at one time by American companies. No subsequent orders are expected. Apparently no orders will be placed in Canada at this time. It is not known how far negotiations have proceeded.

## Lockheed Subsidiary, Renamed Vega Co., Elects Mac Short

Burbank, Cal., June 1—Mac Short, former vice president and chief engineer of Stearman Aircraft Co., has been elected president of Vega Aircraft Co., subsidiary of Lockheed Aircraft Corp., incorporated in August, 1937, as the AiRover Co. The firm is developing a medium sized cabin plane powered by two Menasco engines joined side by side and geared to a single shaft so as to operate a single propeller. The system is equipped with a free wheeling device so that either one or both engines may be operated simultaneously. Other officers of Vega are Walter P. Innes, Jr., vice president and Robert E. Gross (Lockheed president) treasurer. The plant adjoins the Lockheed factory here. Details of the AiRover-Lockheed-Menasco development appeared in AMERICAN AVIATION Apr. 15.

## Lockheed Men Named on Menasco Board

Los Angeles, June 6—Robert E. Gross and Cyril Chappellet, president-treasurer and secretary respectively of Lockheed Aircraft Corp., today were elected to the board of directors of Menasco Manufacturing Co., filling vacancies created by resignation of W. R. Atwood and William Keith Scott.

Although the Menasco company has been engaged during the past year in developing a new type of airplane engine for the Lockheed organization, the election of the two Lockheed executives will not constitute any affiliation between the two companies other than the business relationship resulting from the engine development project which is now nearing completion, representatives of both companies asserted.

It was further revealed that the Menasco Co. has been granted a permit to sell and issue 124,038 shares of its capital stock but it is understood that no public offering is contemplated.

## 36 Lockheeds in 4 Months

Los Angeles, May 28—Deliveries of Lockheed Aircraft Corp. for the first four months of 1938 totaled 36 planes valued at \$2,560,000, of which \$1,968,000 represented exports.

## Dividends

(Compiled by Dow-Jones)

Aero Supply Mfg.—Class A, quarterly, 37½¢, payable July 1, record date June 17.  
Air Associates, Inc.—Quarterly, 12½¢, payable June 25, record date June 18.  
Air Associates, Inc., pref.—Quarterly, \$1.75, payable July 1, record date June 18.  
Bendix Aviation Corp.—No action Feb. 25, 1938.  
Consolidated Aircraft pref.—Quarterly, 75¢, payable June 30, record date June 17.  
Ex-Cell-O Corp.—10¢, payable July 1, record date June 10.  
Irving Air Chute—Quarterly, 25¢, payable July 1, record date June 20.  
Thompson Products—No action Mar. 4, 1938.  
Thompson Products pref.—Quarterly, \$1.25, payable July 1, record date June 24.  
United Aircraft Corp.—50¢, payable June 15, record date June 1.

## N. American Backlog Set at \$9,740,000

Backlog of North American Aviation Corp. was \$9,740,000 on Apr. 30, the firm reports in formally announcing that it has discontinued activities in airline operation to devote all attention to manufacture of planes and parts. Sale of the Eastern Air Lines Division to Capt. Eddie Rickenbacker was consummated in March. Deliveries for the first quarter of 1938 totaled approximately \$950,000.

North American officials are J. H. Kindelberger, president and general manager; J. L. Atwood, vice president and chief engineer; R. A. Lambeth, treasurer; F. Beranek, assistant treasurer; L. R. Beardslee, secretary; H. C. Tafe, assistant secretary and assistant to the president.

J. H. Kindelberger was vice president in charge of engineering and design at Douglas Aircraft Co., from 1925 to 1934. J. L. Atwood was formerly with the U. S. Army Materiel Division and was in charge of design at Douglas Aircraft until 1934.

During 1937 an addition to the plant brought total area to 379,000-sq. ft., and further expansion was made in 1938 of a new warehouse. Total factory space now is 389,380-sq. ft. The plant is said to have one of the most modern laboratories with facilities for complete physical and chemical tests of structures, materials and processes.

At present under contract for the army are 182 three-place observation planes (O-47A) and 202 Basic Combat planes (BC-1). Deliveries on these models began last month.

## KINNER HEAD RESIGNS

### Porter's Action Effective at Once; Firm's Output Rising

Los Angeles, Cal., May 24—Robert Porter, since 1930 president of Kinner Airplane & Motor Corp., has resigned, effective immediately. A petition of the trustee for authority to borrow, issue and sell trustee certificates totaling \$15,000 to bolster capital was granted by Judge Harry A. Hollzer in federal court yesterday. The RFC, to which the firm owes \$82,000, was the only objector to the petition. In answer to the objection, it was stated that the company's properties were assessed for taxes at \$90,000 four days ago, which would indicate market value of about \$200,000, sufficient to cover the RFC debt.

Earl Herring, trustee, said today that production is being increased to eight engines weekly, with possibility of a 10-unit output soon.

## Dutch Buying 39 Martins

Baltimore, May 30—The Dutch government is negotiating with the Glenn L. Martin Co. for purchase of 39 bombers to be used for the army in Java. Total amount of the contract is estimated at \$4,500,000. Company officials refused to confirm or deny the announcement. Glenn L. Martin now is in Europe.

## Brewster—Navy Contract

The Navy Department announced June 7 that a contract had been awarded to Brewster Aeronautical Corp., Long Island, City, N. Y., for "airplanes and spares at a total cost of \$1,910,395.20." Additional information could not be obtained.

## Japan, Brazil Lead May Plane Buyers

Japan and Brazil led foreign buyers of American aircraft, engines and accessories during May, purchasing \$1,334,608 and \$1,220,189, respectively. China, the leader during April, stood third in the May standings. For the second straight month, Russia, formerly one of the leaders, was not in the buying picture. Countries purchasing aircraft products in excess of \$10,000 were as follows:

Japan	\$1,334,608.00
Brazil	1,220,189.00
China	483,048.15
Great Britain	377,190.00
Netherlands Indies	205,613.54
Netherlands	164,058.37
France	152,530.00
Canada	92,969.50
Rumania	57,780.00
Bolivia	55,301.00
Mexico	41,780.00
Australia	33,015.50
India	21,010.50
Honduras	17,961.20
Peru	14,430.00
Finland	11,885.00
Colombia	11,050.00

Countries buying smaller amounts included Angola, Argentina, Costa Rica, El Salvador, Germany, Jamaica, Norway, Panama, Paraguay, Portugal.

## Air Associates Net for 3 Months, \$59,980

Air Associates, Inc., in an unaudited report for the six months ended Mar. 31, 1938, announces a net profit of \$59,980 after depreciation and federal income taxes, but before surtax on undistributed profits, equal after dividend requirements on 2,742 shares (\$9 par) of \$7 cumulative convertible preferred stock to 50¢ a share (\$1 par) on 99,884 shares of common stock. This compares with \$31,768 or 27¢ a share on 82,921 common shares in the first quarter of 1937.

Total assets are \$980,498.99, with \$82,271.40 cash; \$165,855.62, notes and accounts receivable (trade), less reserve for doubtful collections; \$484,329.08, aircraft materials, supplies, parts and accessories; \$26,010.72, supplies and accessories in process; \$179,593.62, property plant and equipment, less depreciation; \$35,548.90, deferred charges.

Current liabilities are \$178,262.80. Capital surplus is \$512,558.84 (from reductions of capital stock May 5, 1931, and Mar. 23, 1937, and paid in, less deficit from operations to May 5, 1931). Earned surplus since May 5, 1931, \$150,639.98.

Profit and loss figures for the first quarters of 1938 and 1937 follow, with 1937 figures in parentheses: Net sales, \$1,029,194.42 (\$629,857.31); Total gross profit, \$219,044.98 (\$160,140.22); operating profit, \$71,419.30 (\$37,772.11).

## Air Associates' Dividends

The board of directors of Air Associates, Inc., June 8 declared a quarterly dividend of 12½¢ a share on common stock, payable June 25 to stockholders of record June 18. This represents an increase in the regular dividend to a 50¢ annual rate as compared to 40¢ previously paid. The quarterly dividend of \$1.75 a share was declared on \$7 cumulative first preferred stock payable July 1, to holders of record June 18.

## S. E. C. REPORTS

## Fairchild Assets

Statement for Fairchild Aviation Corp., ending Dec. 31, 1937, as published in AMERICAN AVIATION May 1, showing profit of \$139,675, is amplified by the following figures to the SEC: Sales (less returns and allowances) \$1,411,763.29; gross profit \$602,660.41; selling, administrative and general expenses \$320,695.51; other income \$63,916.89; gross income \$345,881.79; income deductions \$158,379.86; provisions for excess profits tax \$4,084.92; normal income tax, \$19,121.54; surtax on undistributed profits, \$49.15. Net income was \$164,246.32 before deducting minority interests totaling \$8,000 to Fairchild Camera Corp. (dividends on preferred stock); \$1,305 to Fairchild Aerial Surveys, Inc., (dividends on preferred stock) and \$15,266.38 to Fairchild Aerial Surveys, Inc., including \$14,200 dividends paid. Net income: \$139,674.94.

Total assets, \$1,287,978.04; current assets (including cash of \$164,638.44) \$985,086.27; property and plant equipment \$212,572.97; model development, tools and patterns, less reserve for amortization, \$151,224.18; prepaid and deferred charges \$3,842.48.

Current liabilities (including \$75,000 notes payable to banks) \$548,983.73; minority interests in subsidiary companies, consolidated, \$166,945.40; capital stock \$337,032; capital surplus \$28,530.27; operating surplus \$260,486.64.

## Brewster Financial Report

Following recent announcement of a net profit of \$19,328, for the period Feb. 10 to Dec. 31, 1937, Brewster Aeronautical Corp., reports total assets of \$1,074,016.15; current assets, \$791,067.83, including cash of \$206,423.03; fixed assets, \$46,676.73; total deferred charges, \$25,805.34.

Current liabilities are \$83,189.32; accounts payable, \$38,763.21; reserves for refund of excess profits on Navy contracts, \$3,400. Accrued payrolls and other expenses, \$18,196.55. Reserve for federal income and other taxes, \$22,829.58. Capital stock, common, \$1 par value, 700,000 shares authorized, 350,000 issued: \$350,000.

Total gross sales for the period were \$729,311.20, and net sales \$712,823.54. U. S. Navy sales were \$56,284.41; other sales, \$673,026.79. Costs and expenses (exclusive of development costs on experimental planes in excess of contract prices), \$691,112.58. Profit from operations, \$21,710.96. Other income, \$2,304.43. Net income before taxes, \$22,490.39.

Accounts receivable include \$25,102.30 due from government, collection of \$23,300.23 of which is subject to final acceptance of a plane. An item, "Un-amortized current design rights and drawings" of \$167,027.64 represents cost in excess of contract prices on two experimental planes designed and constructed for the Navy. This amount includes approximately \$8,000 maintenance and represents rent, taxes, depreciation and general expenses, of which \$51,700.10 was incurred by the predecessor company prior to Feb. 10, 1937. An estimated sum of \$16,500 additional will be spent on these planes before completion and acceptance.

James Work, president and director, received \$34,802.01 during the fiscal year.

## Interstate Offering

Interstate Aircraft & Engineering Corp. reports recent sale to the public intrastate through Laswell & Co., underwriter, of 74,995 shares and to its directors five shares directly at \$1 a share. As announced in AMERICAN AVIATION Jan. 1, the firm is issuing 125,000 shares, common stock, at \$1 a share, Laswell & Co., having agreed to sell ultimately 299,995 shares of the 500,000 shares authorized.

## Breeze Assets \$3,437,220

Breeze Corps., with a net profit of \$93,501 for the year ending Dec. 31, 1937 (AMERICAN AVIATION Mar. 15), reports total assets of \$3,437,220.19 on Dec. 31. Other items: cash, \$268,511.98; cash held pending adjudication of writ of attachment, \$18,000; Notes receivable (customers), \$278.21. Accounts receivable (customers): U. S. government, current, \$106,720.73, and retained percentage, \$58,976.96; customers other than U. S. government, \$92,684.99. Total accounts receivable, \$258,660.89, less reserve for doubtful notes and accounts of \$252,660.89.

Inventories at cost, \$677,916.07. Due from subsidiaries, \$22,441.18. Investment in subsidiaries and affiliate: Federal Laboratories, Inc. (98.9%), \$122,036.04; Essex Tool & Die Co. (100%), \$25,912.57; Breeze Corp. of Great Britain (100%), \$1.00. Fixed assets less reserve for depreciation, \$206,580.11.

Accounts payable (trade), \$112,296.50; customers' credit balances, \$1,755.34; accrued liabilities, \$148,819.88. Reserve for federal taxes on income (including reserve for federal taxes of prior years in dispute, \$72,539.37), \$88,639.63. Capital stock, \$314,122. Surplus, \$2,885,638.68.

Breeze took over Essex Tool and Federal Laboratories during 1937.

## Thompson Assets \$8,663,276

Thompson Products, Inc., and subsidiaries closed the year ending Dec. 31, 1937, with assets of \$8,663,276.12. Net profit, as announced in AMERICAN AVIATION Apr. 1, was \$905,813.55 for parent and subsidiaries, Thompson Products, Ltd. (Ontario), Toldeo Steel Products Co., and Jadson Motor Products Co., all 100% owned.

Current assets on Dec. 31 were \$4,706,457.32; cash, \$321,547.41; trade notes, acceptances and accounts receivable, less reserve, \$1,372,704.24. Inventories were \$3,012,205.67. Investments and other assets were \$124,181.80. Fixed assets were \$2,888,148.93 and intangible assets less amortization were \$828,991.37. Deferred charges were \$115,466.70.

Current liabilities: \$1,812,112.79. Mortgage notes, Toledo Steel Products Co., due \$50,000 semi-annually June 6, 1938, to Dec. 6, 1939—\$200,000, less amount of \$100,000. Included under current liabilities. Capital stock, \$6,734,452.75. Capital surplus, \$329,404.44; earned surplus, \$2,516,723.31, less \$4,575 representing capital stock in treasury. Profit before federal income taxes, \$1,073,019.41.

## Ryan Profit \$16,370

Revealing a net income for the year ending Dec. 31, 1937, of \$16,370.25, the statement for Ryan Aeronautical Co. and subsidiaries shows: gross sales less discounts, returns and allowances, \$290,901.86; gross profit, \$34,668.39; operating revenues, \$106,964.10; operating expenses, \$23,875.16; net operating revenues, \$83,088.94. Selling, general and administrative expenses, \$64,387.48; total other expenses, \$38,654.60. Net income before provision for federal income tax: \$18,995.94.

The consolidated balance sheet shows total assets of \$456,616.39. Current assets, \$245,863.64; cash \$62,666.44; marketable securities, \$2,307. Net fixed assets, \$159,069.10. Total current liabilities are \$43,823.72. Accounts payable (trade), \$24,905.31; customers'

deposits, \$7,064.25; taxes payable, \$5,128.07; salaries and wages payable, \$6,066.85. Accrued insurance, \$659.24. Under deferred income are items of deferred profit on uncompleted contracts, \$33,676.44 and unearned tuitions of \$48,671.14.

## American Airlines Report

American Airlines, which announced a 1937 loss of \$93,627.56 (AMERICAN AVIATION Apr. 1) reports assets of \$7,213,467.11 in an amplified statement for the year ending Dec. 31, 1937, forwarded to the Securities & Exchange Commission. Aviation Corp. owns 91.4% of the five year 4½% convertible debentures dated July 1, 1936, due July 1, 1941, with a stated valuation of \$2,421,662.50. Reports of the two subsidiaries, Ontario Airways, Ltd. (100%) and Century Properties Co. (100%) are not incorporated in the balance sheet.

Current assets included cash on hand of \$91,860.28 and demand deposits of \$587,711.14; accounts receivable (trade), \$767,371.62, less reserve for doubtful accounts, \$7,500. Inventories, parts and supplies, \$955,992.93; indebtedness of officers and employees, \$9,382.37. Total current assets, \$2,404,818.34. Investments, \$152,676.33. Fixed assets (property, plant, equipment, \$7,544,065.68) less reserve for depreciation, \$4,496,491.28.

Deferred charges, \$99,506.91. Other assets include \$59,974.25, special funds, U. S. treasury notes, deposited in escrow by insurance agreement. Total assets are \$7,213,467.11.

Current liabilities total \$1,410,270.42, including the following items: notes payable (others), \$60,375; accounts payable (trade), \$572,294.98; accounts payable (affiliate) current, consolidated, \$5,354.88. Accrued liabilities include payrolls, \$19,679.66; taxes, social security, \$46,250.83, and miscellaneous, \$15,434.69. Interest, \$96,613.42. Insurance, \$62,939.78. Sundry, \$9,277.20. Chattel mortgage notes, installments, due within one year, \$522,050.

Deposits on air travel plans and unredeemed scrip comprise \$566,924.49.

Long term debt figures follow: funded debt, \$3,520,950. Other long term debt: 5% chattel mortgage notes (RFC), due 1938-40 (secured by chattel mortgages on aircraft and engines at a cost of approximately \$3,091,000), \$1,426,222.55, less installments due within one year, included in current liabilities above (\$522,050), \$904,172.55. Capital stock, issued and outstanding, 288,099 shares: \$2,880,990. Surplus: paid in, \$25,810.00; earned (deficit) \$2,095,650.35. Contingent liabilities under pending litigation, not determined, but not expected to exceed \$25,000.

## Stearman Hammond Change

Stearman Hammond Aircraft Corp. announces that the par value of outstanding common stock has been decreased from \$1.25 a share to 62½¢. Recently, 8,500 6% convertible one year promissory notes were converted into 6,800 shares of common stock at \$1.25 a share. In the year ending Dec. 31, 1937, sales were \$86,126.43 (aircraft \$82,606.25; total \$98,426.25 less selling commission of \$15,820); sales and manufacturing loss, \$102,227.47; expenses and other charges \$42,945.53; total loss \$145,173.

Assets Dec. 31, 1937, were \$294,454.

## M. P. HANSON PROMOTED

Radio Expert Formerly With Navy Is Named V. P. of Radioguide Firm

Malcolm P. Hanson was recently appointed vice-president in charge of engineering and production by Radio



Hanson

Navigational Instrument Corp., manufacturers of the Simon Radioguide. He joined the company last January. Born Oct. 19, 1894, of American parents in Germany, he later returned with his family to this country, attending the Milwaukee University School and spending several years with Cutler-Hammer Co. After an engineering course at the University, he was commissioned in the Navy and served as radio officer in the Navy's aviation corps during the war.

After the armistice he taught physics and radio engineering at the University of Wisconsin. In 1924 he received an appointment to the Laval Research Laboratory near Washington, D. C. and was placed in charge of the aircraft radio section. At Admiral Byrd's request, he was detailed to accompany Byrd on his 1928-1930 antarctic expedition. Upon his return he was placed in charge of technical work at the radio test laboratory of the Anacostia Naval Air Station.

07, including \$1,277.53 cash; accounts receivable of \$524.23; inventories \$30,027.24; total current assets \$35,533. Liabilities included notes payable of \$64,000; accounts payable, \$36,596.66; accrued expenses \$2,636.95; customers' deposits on purchase orders \$3,662.00. Total current liabilities, \$106,895.61. Stated capital and surplus, \$187,558.46.

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## Pan American Board Is Reduced, 19 to 17; Option Data Reported

Pan American Airways' board now is comprised of 17 directors instead of 19, the company reports to the Securities & Exchange Commission. Stockholders May 19 amended by-laws permitting any size board larger than 10 members. Directors need not be stockholders.

On Dec. 31, 1937, there were 85,488 shares of stock subject to option:

11,856 shares were subject to sale at \$13.50 a share, cash, to selected senior pilots under a stock plan, purchases to be made only in limited quantities depending on pilot's time of service, and only during a four-months period in 1938.

50,000 shares (\$5 a share par value) were subject to an option at \$20 a share granted Juan Trippe, president, as follows, to and including Dec. 31, 1940: 25,000 from Jan. 1, 1936; 15,000 from Jan. 1, 1938; 10,000 during 1940. These were granted in consideration of an option on his services through 1940, the SEC report states.

23,632 shares were subject to exchange privileges granted in respect of stock of Pan American Executives Association which had not been exchanged for stock on Dec. 31, 1937. These were granted by the board of directors Apr. 27, 1937. Principal asset is 50,000 shares of stock of Pan American Airways. The association was organized to carry out a five year management stock purchase plan approved by stockholders in 1932, designed to extend to certain officials opportunity to increase stock.

Subsidiaries on Dec. 31, 1937, had commitments for approximately \$4,350,000 in connection with purchase of flight equipment and airport improvements, requiring approximately \$1,800,000 cash in 1938.

Juan Trippe, president, received salary of \$17,500 and director's fees of \$1,171 in 1937. George L. Rihl, vice-president, received salary of \$17,041.66 and J. H. Johnston, controller, received \$12,041.66. Root, Clark, Buckner & Ballantine, general counsel, received \$50,958.80 fees during the year and Loomis, Suffern & Fernald, certified public accountants, received \$26,020.

Directors are Wallace M. Alexander, David K. E. Bruce, S. Sloan Colt, Lyman Delano, Donald W. Douglas, S. M. Fairchild, Herbert Fleischacker, G. B. Grosvenor, Robert Lehman, E. O. McDonnell, L. B. Manning, Richard K. Mellon, George Mixter, Fred Rentschler, Juan T. Trippé (president), C. V. Whitney (chairman of the board), and John Hay Whitney. Other officials not previously mentioned are J. S. Woodbridge, treasurer; H. Preston Morris, secretary; C. M. Blaskie, assistant secretary; G. M. Francis, assistant treasurer.

The company reported a consolidated net income in 1937 of \$510,416.68 (AMERICAN AVIATION June 1).

### Better Brewster Quarter

Brewster Aeronautical Corp. announces net profit of \$93,362, or about 27¢ each on 350,000 capital shares, after provision for normal federal income taxes. This compares with \$19,328 net in the period from reorganization on Feb. 10, 1937, to Dec. 31, 1937. Backlog on Mar. 31 was \$720,369.

### Beech Quarter Loss

Beech Aircraft Corp. for the six months ending Mar. 31 announces a net loss of \$35,364, as compared with a net income of \$3,126, equal to 1¢ each on 239,349 shares, for the six months to Mar. 31, 1937.

## Air Corps Gets \$70,556,972 and Contract Authorization in 1939 Army Bill

Congress on June 7 passed the regular Military Establishment bill (H. R. 9995), which provides \$70,556,972 for the Army Air Corps, with an additional contract authorization of \$16,126,894. Also included in the bill is provision for construction and improvements at various Air Corps flying fields.

Not less than \$33,150,646 of the appropriation and contract authorization, exclusive of \$16,126,894 for payment of obligations incurred under the contract authorization for the fiscal year 1938, is to be used for the procurement of new combat planes, equipment and accessories, including not more than \$1,691,044 for procurement of spare engines and spare parts for airplanes procured pursuant to the provisions of the 1938 Air Corps appropriation. In addition, the bill stipulates that \$70,000 of the Air Corps 1935 appropriation, and \$807,980 of the 1936 appropriation shall remain available until

June 30, 1939, for payment of obligations incurred under contracts executed prior to July 1, 1936.

Appropriation was also made for work at the following fields: Hickam Field, Hawaii, \$786,000; Hamilton Field, Calif., \$350,000; Chanute Field, Ill., \$1,500,000, and Kelly Field, Tex., \$1,747,000. Contracts in excess of the stipulated amounts may also be entered into as follows: Chanute Field, \$575,000, and Kelly Field, \$748,300.

For construction of an Air Corps Technical School at Denver, Colo., \$1,385,000 has been provided, with an additional contract authorization of \$150,000. A total of \$61,698 is available for purchase of sites for radio beacons as aids to air navigation in the vicinity of Chanute Field; Hamilton Field; March Field, Calif.; Maxwell Field, Ala.; Mitchell Field, N. Y.; Randolph Field, Tex.; Scott Field, Ill., and Selfridge Field, Mich.

## Solar Stock Offering May Bring \$149,200

Underwriters will offer to the public 74,600 shares of Solar Aircraft Co. capital stock at \$2.50 a share, the company reports to the SEC in a post effective amendment, following an underwriter's agreement dated Apr. 22. Up to 10,000 shares of the total, however, may be purchased by employees, officers and directors before date of effectiveness of the new amendment at a cost of \$2 a share.

Estimated net proceeds are \$149,200, and the company lists probable expenditures of this sum as follows:

For expense of new prospectus, \$845; to reduce accounts payable, \$38,902.04; to pay taxes, \$5,764.88; for construction of new building, \$24,950; for improvements to existing building, \$2,870; to purchase additional machinery, including welders, drop hammers, milling machinery, lathes, presses and elevators, \$12,780; to purchase additional equipment including work benches, vises, foundry equipment, furnaces, die storage and stockroom equipment, vault, \$22,226; to carry additional inventories of sheet steel and tubing, \$10,000; to carry increased accounts receivable and to increase cash working capital, \$30,862.08.

An uncertified balance sheet as of Apr. 2, 1938, reveals fixed assets (net) of \$54,448; net intangibles (less reserve for depreciation), \$99,383.03; investments, \$8,056.40. Current assets total \$126,190.39, including: cash of \$3,699.70; accounts receivable, \$54,948.09, less contingent liabilities for accounts receivable, \$19,711.37; inventories, including materials and unfinished goods of \$102,203.57; and finished goods of \$575.75. Deferred charges (prepaid expenses) are \$3,986.14. Total assets are \$292,064. Current liabilities are \$84,782.16 and total surplus, \$76,731.59. Net income from Nov. 14 to Apr. 2, 1938, not certified, is reported as \$22,651.15. Net income of \$43,375 was announced for the 48 weeks to Apr. 2 (AMERICAN AVIATION May 15).

## ARMY ORDERS LOCKHEEDS Contract Involving \$570,913 For 13 Trainers Announced

Lockheed Aircraft Corp. May 25 was awarded a War Department contract for 13 Model 12-A2 basic training and command planes at a total cost of \$570,913.80. The craft will be assigned for extensive service tests at the Air Corps Advanced Flying School, Kelly Field, San Antonio, Tex. Each plane is powered with two Pratt & Whitney R-985 engines, and is equipped with retractable landing gear, braking flaps, and automatic pilot, the War Department announced.

"Progress in aviation during the last few years has been so rapid that the types of bombers in production more than five years ago are today unsatisfactory for training purposes," the department stated. "Heretofore, obsolescent planes from combat squadrons have been utilized for training pilots. However, it is desirable to supply the advanced flying school with a type of dual engine plane which has all the various instruments, accessories and controls used on modern multi-engine aircraft, in order that students may have training with the more complicated mechanisms prior to graduation from the school."

## \$4,000,000 Contract for Canada Grumman

Montreal, June 1—Canadian Car & Foundry Co., Ltd., Fort William, will start work in several months on 105 Grumman military planes for South American republics as yet unnamed, it was learned here today, as negotiations neared completion. Amount involved is said to be about \$4,000,000. Another order for 45 additional craft is likely, which would add \$1,700,000 to the backlog. The firm at present is employing 350 persons. Forty Grumman ordered by the Turkish government last fall have been delivered for \$1,600,000.

## 1938 Exports, 107% Over 1937, Expected to Double This Year

With the first four months' exports of aeronautical products from the United States running 107% ahead of a similar 1937 period, indications are that the 1938 total will double and may possibly triple the record-breaking \$39,405,473 established last year.

Statistics released on May 31 by the Bureau of Foreign and Domestic Commerce reveal that exports of American aircraft, engines and accessories during the first four months totaled \$21,339,534, as compared with \$10,301,924 during a similar period last year. This four months' figure is only 7.7% less than the \$23,143,203 recorded for the entire year 1936, and also is only 20.4% behind last year's record. The April total was \$7,019,351, which is 17% ahead of March and 125% ahead of April, 1937.

Should exports continue to increase, as they did in 1937, especially during the last five months of the year, the 1937 record is certain to be broken. Brower York, of the Bureau of Foreign and Domestic Commerce aeronautics division, who in January, 1937 predicted that that year's total would be \$40,000,000, states that there is no reason to believe that the 1938 exports will decline. "On the contrary," he said, "a prediction that they will more than double is not too optimistic."

With Great Britain and perhaps France making large purchases in the United States, York believes that the final figure may be three times greater than the 1937 total. Other countries are also expected to increase their orders here.

Aeronautical exports have shown a steady increase since the first of the year. Totals for January, February, March and April were \$3,190,281, \$5,152,583, \$5,977,319 and \$7,019,351, respectively.

## 13 Grumman Amphibs in \$1,412,916 Contract

The War Department June 3 announced approval of a contract for 26 short range Grumman amphibians, model G-31, with spare parts, at a total cost of \$1,412,916.80. The planes will be assigned to various Air Corps stations on the coasts and in insular possessions where over-water flying is required, the Department revealed. They will be used primarily as rescue ships.

The G-31, which will probably carry the Army designation OA-9, is powered with two R985, Pratt & Whitney Wasp Jr. engines, has a top speed of more than 185-mph. and a cruising speed in excess of 140-mph., with a landing speed of about 70-mph. It carries a crew of two, and four passengers. Normal cruising range is about 500 miles.

## Private Stock Sale Nets Beech Aircraft \$100,000

Beech Aircraft Corp., in a report received by the SEC May 31, states that on Feb. 18 it sold 40,000 shares of common capital stock to J. A. Harris, III, Philadelphia, for \$100,000 cash, in a private sale with no commissions involved. The income was or will be used as follows: \$80,000 to retire bank loans, and \$20,000 to increase raw material inventory and for addition to working capital. Total amount of common capital stock outstanding (par value \$1 a share, voting) was 279,349 shares on May 23, 1938.

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Following are stock transactions and holdings of officers, directors and principal stockholders as reported to the Commission May 1-10. All transactions were made in April except those specifically noted. Holdings are as of the end of that month.

**American Airlines, Inc.**—Harry E. Benedict, director (March, 1938), decreased common 400 to 889 and holds 10,000 4½% convertible debentures.

Aviation & Transportation Corp.—Victor Emanuel, director, acquired 5336 by distribution, holding 17,836; through Emanuel & Co., distributed all of 4,830; through corporation B increased 300 to 4,800 and holds 5,000 through corporation C.

**Beech Aircraft Corp.**—Charles G. Yankey, director, increased common 500 to 3,495.

**Chicago & Southern Air Lines**—Bruce E. Braun, officer and director, holds 800 common vtc. and decreased convertible preferred 100 to 150. D. D. Walker, officer and director, holds 23,118 common vtc. and increased convertible preferred 60 to 2,000.

**Consolidated Aircraft Corp.**—C. A. Van Dusen, officer and director. Increased common 100 to 4.100 and holds 148 \$3 convertible preferred.

**Douglas Aircraft Co.**—Donald W. Douglas officer and director, decreased 500 common to 5,300.

**Lockheed Aircraft Corp.**—Lawrence C. Ames, director, holds 9,000 directly; through C. H. Ames Estate acquired 100, holding that amount. Southern California Aviation, beneficial owner, distributed 30,834 in September, 1935, and 72,809 in October, 1935, leaving 4,291.

**Pan American Airways Corp.**—J. S. Woodbridge, officer, gave away 132  $\frac{1}{8}$  par common, leaving 750.

**Ryan Aeronautical Co.**—E. A. Smith, officer, decreased 100 common to 1,100.

**Stearman Hammond Aircraft Corp.**—Samuel Metzger, officer, decreased 100 common in March and 900 in April, holding 12,000.

**Western Air Express**—Alvin P. Adams, officer and director, holds 5,000 common and acquired 5,000 rights for common, holding that amount. Charles Boettcher, Jr., director, owns 100 common and acquired 100 rights, holding that amount. Margaret Coulter, beneficial owner, reports 45,000 common shares and acquired 45,000 rights, holding that amount. William A. Coulter, beneficial owner, has 84,488 common, and acquired 84,488 rights, holding that amount. Harold F. Fabian, director, reports ownership of 500 common and acquired 500 rights, holding that amount. W. F. Nicholson, director, reports 250 common and acquired 250 rights, holding that amount. Thomas Wolfe, officer and director, holds no stock directly, but through wife reports acquisition of 200 shares common in September, 1937, 100 shares in October, sold 100 shares in November, and sold 100 shares in January, bought 100 shares in February, holding 200 shares. Ralph Waycott, director, increased common 62 to 187 through exercise of rights.

Following is a summary of equity holdings of officers, directors and principal stockholders of companies, any of whose securities have become registered with the Commission.

**Grumman Aircraft Engineering Corp.**  
(common)

John J. Bergen, director	none	Apr. '38
through John J. Bergen, Ltd.	9	Apr. '38
L. E. Grumman, off. & dir.	149,160	Apr. '38
Albert P. Loening, dir.	22,000	Apr. '33
Edmund W. Poor, off. & dir.	13,200	Apr. '33
J. A. Stamm, off.	100	Apr. '38
L. A. Swirbul, off. & dir.	71,500	Apr. '38
Purchase Warrants:		
John J. Bergen, dir.	none	Apr. '38
Through John J. Bergen Co. Ltd.	16,000	Apr. '38

Following are shown equity holdings filed by persons becoming officers, directors or principle stockholders of issuers having any securities registered.

**Bendix Aviation Corp.**  
Edwin R. Palmer, off.

& dir.	none Apr. '38
Douglas Aircraft Co.	
Dwight Whiting, dir.	none Apr. '38

<b>North American Aviation, Inc.</b>	
	(common)
Ernest R. Breech, dir.	100 Apr. '38
<b>Warner Aircraft Corp.</b>	
L. A. Faunce, dir.	none Apr. '38
<b>Western Air Express</b>	
	(common)
James Q. Newton, Jr., dir.	2,000 Apr. '38
Rights for common:	
James Q. Newton, Jr., dir.	2,000 Apr. '38

The Department of Labor announced the following contracts, amounting to \$559,980.21, signed during the week ended May 26 by various government agencies:

**Kilgore Manufacturing Co.,** Tippecanoe City, Ohio, aircraft lights, Navy, \$11,550.00.

**Scintilla Magneto Co., Inc.,** Sidney, N. Y., magneto assemblies, Army Air Corps, \$29,968.00.

**Kellett Autogiro Corp.**, Philadelphia, Penna., exhaust collector rings, Army Air Corps. \$13,693.95.

**Edgar Tobin Aerial Surveys, San Antonio, Tex., aerial surveys, Agriculture, \$99,495.00.**

**Iowa Aerial Surveys, Des Moines, Iowa, aerial surveys, Agriculture, \$95,-788 74**

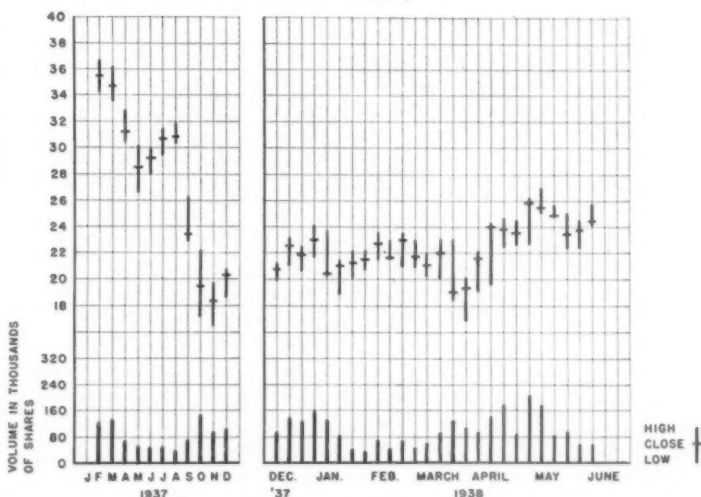
**Park Aerial Surveys, Inc., Louisville, Ky.,** aerial surveys, Agriculture, \$63,-568.00

**Aero Service Corp., Philadelphia, Penna., aerial surveys, Agriculture,**

**C. S. Robinson Aerial Surveys, Ithaca, N. Y., aerial surveys, Agriculture, \$58,-411.08.**

**Morgan Aerial Surveys, Indianapolis, Ind., aerial surveys, Agriculture, \$33,-**  
373 20

San Diego, Cal., May 27—The board of directors of Solar Aircraft Co. today declared a dividend of 5¢ a share on the 129,640 shares of \$1 par value common capital stock, of record June 3, payable July 1, 1938, Edmund T. Price, president, announces.

WEEKLY AVIATION AVERAGES  
(1937-1938)

*Chart Data Supplied by Wyckoff Associates, Inc.,  
Comments by Philip P. Friedlander*

The aviation averages reached a high of 27.03 during the week of May 14. Since the first of the year this group has consistently maintained its leadership in the general stock market. The sell-off that took place in May again showed the strength of aviation equities. While the Dow-Jones flirited in the 107 area, the equities of this group merely retreated to 22.47. Knowing that the low of the year was 17.03 and the high 27.03, this reaction can be considered only in the light of a consolidating move.

Just how high this forward thrust will go is hard to predict at present. There is, of course, a good possibility that for a reasonable length of time aviation stocks will jiggle around in a

definite trading area. But when once these stocks break loose from their moorings, another substantial advance can be anticipated.

Cessna Aircraft Co. for the three months ending Mar. 31 announces net income of \$775. For the year 1937 income was \$1,022, as compared with \$326 net profit in 1936.

April air express shipments on a nation-wide scale increased 7% over the corresponding month in 1937, according to Railway Express Agency. Total for the period was 56,157 shipments.

## NEW YORK STOCK EXCHANGE

	Week Ending May 28				Week Ending June 4				Week Ending June 11			
	High	Low	Net Change	Sales	High	Low	Net Change	Sales	High	Low	Net Change	Sales
Aviation Corp .....	3 <sup>5</sup> / <sub>8</sub>	3 <sup>1</sup> / <sub>4</sub>	- 3 <sup>3</sup> / <sub>8</sub>	4,800	3 <sup>1</sup> / <sub>2</sub>	3 <sup>1</sup> / <sub>4</sub>	+ 1 <sup>4</sup> / <sub>8</sub>	3,300	3 <sup>3</sup> / <sub>4</sub>	3 <sup>5</sup> / <sub>8</sub>	+ 1 <sup>4</sup> / <sub>8</sub>	4,500
Bendix Aviation .....	11	9 <sup>1</sup> / <sub>2</sub>	- 7 <sup>5</sup> / <sub>8</sub>	5,600	10 <sup>3</sup> / <sub>4</sub>	9 <sup>3</sup> / <sub>4</sub>	+ 7 <sup>5</sup> / <sub>8</sub>	2,600	11 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>8</sub>	- 1 <sup>4</sup> / <sub>8</sub>	5,000
Boeing Airplane .....	24	20 <sup>1</sup> / <sub>8</sub>	-13 <sup>4</sup> / <sub>8</sub>	13,400	23 <sup>3</sup> / <sub>4</sub>	20 <sup>3</sup> / <sub>4</sub>	+ 2	11,200	24 <sup>7</sup> / <sub>8</sub>	23	- 1 <sup>4</sup> / <sub>8</sub>	9,400
Consolidated Aircraft .....	15 <sup>7</sup> / <sub>8</sub>	13 <sup>1</sup> / <sub>2</sub>	-11 <sup>1</sup> / <sub>8</sub>	7,300	15 <sup>1</sup> / <sub>2</sub>	14	+ 1 <sup>1</sup> / <sub>4</sub>	2,100	16 <sup>1</sup> / <sub>8</sub>	15	+ 1 <sup>4</sup> / <sub>8</sub>	4,900
Curtiss-Wright .....	4 <sup>7</sup> / <sub>8</sub>	4 <sup>1</sup> / <sub>2</sub>	- 3 <sup>3</sup> / <sub>8</sub>	19,800	4 <sup>1</sup> / <sub>2</sub>	4 <sup>1</sup> / <sub>2</sub>	+ ....	9,000	4 <sup>3</sup> / <sub>4</sub>	4 <sup>3</sup> / <sub>4</sub>	+ 1 <sup>4</sup> / <sub>8</sub>	11,500
Curtiss-Wright A .....	20 <sup>1</sup> / <sub>4</sub>	18	- 2 <sup>1</sup> / <sub>2</sub>	22,300	19 <sup>1</sup> / <sub>8</sub>	18 <sup>1</sup> / <sub>8</sub>	+ 3 <sup>5</sup> / <sub>8</sub>	8,500	20 <sup>3</sup> / <sub>8</sub>	19 <sup>1</sup> / <sub>8</sub>	+ 1 <sup>4</sup> / <sub>8</sub>	9,500
Douglas Aircraft .....	43 <sup>4</sup> / <sub>8</sub>	43	- 39 <sup>5</sup> / <sub>8</sub>	33,400	44 <sup>3</sup> / <sub>4</sub>	40 <sup>3</sup> / <sub>4</sub>	+ 2 <sup>1</sup> / <sub>8</sub>	18,100	47 <sup>1</sup> / <sub>8</sub>	43 <sup>3</sup> / <sub>8</sub>	- 1 <sup>4</sup> / <sub>8</sub>	27,200
Glenn L. Martin .....	23 <sup>3</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>2</sub>	-13 <sup>3</sup> / <sub>8</sub>	37,600	23 <sup>3</sup> / <sub>4</sub>	20 <sup>1</sup> / <sub>2</sub>	+ 1	18,400	24	21 <sup>3</sup> / <sub>4</sub>	+ 1 <sup>4</sup> / <sub>8</sub>	27,900
Natl. Aviation Corp .....	8	6 <sup>1</sup> / <sub>4</sub>	- 3 <sup>3</sup> / <sub>8</sub>	6	7 <sup>1</sup> / <sub>2</sub>	7	+ 3 <sup>4</sup> / <sub>8</sub>	700	8 <sup>5</sup> / <sub>8</sub>	7 <sup>1</sup> / <sub>8</sub>	+ 3 <sup>4</sup> / <sub>8</sub>	3,500
N. American Aviation .....	9 <sup>1</sup> / <sub>8</sub>	8 <sup>1</sup> / <sub>4</sub>	+ 1 <sup>5</sup> / <sub>8</sub>	19,700	9	8 <sup>1</sup> / <sub>8</sub>	+ 1 <sup>4</sup> / <sub>8</sub>	10,300	10	8 <sup>1</sup> / <sub>8</sub>	+ 5 <sup>4</sup> / <sub>8</sub>	33,600
Sperry Corp. ....	21 <sup>1</sup> / <sub>8</sub>	19 <sup>3</sup> / <sub>8</sub>	- 7 <sup>5</sup> / <sub>8</sub>	18,000	20 <sup>3</sup> / <sub>4</sub>	19 <sup>3</sup> / <sub>8</sub>	+ 5 <sup>4</sup> / <sub>8</sub>	9,600	21 <sup>3</sup> / <sub>8</sub>	20 <sup>1</sup> / <sub>4</sub>	+ 1 <sup>4</sup> / <sub>8</sub>	9,700
Thompson Products .....	11	10 <sup>1</sup> / <sub>2</sub>	+ 1 <sup>2</sup> / <sub>8</sub>	25,000	10 <sup>3</sup> / <sub>4</sub>	10 <sup>1</sup> / <sub>2</sub>	- 1 <sup>4</sup> / <sub>8</sub>	600	11 <sup>1</sup> / <sub>8</sub>	10 <sup>7</sup> / <sub>8</sub>	+ 3 <sup>4</sup> / <sub>8</sub>	600
TWA .....	6	4 <sup>7</sup> / <sub>8</sub>	- 1	2,700	5 <sup>1</sup> / <sub>2</sub>	5 <sup>1</sup> / <sub>2</sub>	+ 1 <sup>2</sup> / <sub>8</sub>	1,700	6	5 <sup>1</sup> / <sub>2</sub>	+ 1 <sup>4</sup> / <sub>8</sub>	2,100
United Air Lines .....	8 <sup>3</sup> / <sub>4</sub>	6 <sup>7</sup> / <sub>8</sub>	-11 <sup>1</sup> / <sub>2</sub>	15,100	8	6 <sup>1</sup> / <sub>8</sub>	+ 5 <sup>4</sup> / <sub>8</sub>	4,400	8 <sup>5</sup> / <sub>8</sub>	7 <sup>3</sup> / <sub>4</sub>	+ 3 <sup>4</sup> / <sub>8</sub>	7,100
United Aircraft .....	26 <sup>3</sup> / <sub>4</sub>	24 <sup>1</sup> / <sub>8</sub>	- 1 <sup>2</sup> / <sub>8</sub>	27,100	26 <sup>5</sup> / <sub>8</sub>	24 <sup>5</sup> / <sub>8</sub>	+ 5 <sup>4</sup> / <sub>8</sub>	16,200	27	25 <sup>3</sup> / <sub>4</sub>	....	12,300
Wright Aeronautical .....	83	76	-10	280	77	77	+ 1	10	88	80	+ 6	160

	Week Ending May 28				Week Ending June 4				Week Ending June 11			
	High	Low	Net Change	Sales	High	Low	Net Change	Sales	High	Low	Net Change	Sales
Aero Supply A	16	16	+1 <sup>3</sup> <sub>8</sub>	100	...	...	....	...	...	...	....	...
Aero Supply B	3 <sup>5</sup> <sub>8</sub>	3 <sup>1</sup> <sub>4</sub>	- 3 <sub>8</sub>	700	3 <sup>1</sup> <sub>4</sub>	3 <sup>1</sup> <sub>4</sub>	....	200	3 <sup>5</sup> <sub>8</sub>	3 <sup>1</sup> <sub>4</sub>	+ 3 <sub>8</sub>	2,700
Air Associates	13 <sup>1</sup> <sub>2</sub>	11 <sup>7</sup> <sub>8</sub>	- 3 <sub>8</sub>	600	8 <sup>1</sup> <sub>4</sub>	7 <sup>1</sup> <sub>2</sub>	+ 1 <sup>1</sup> <sub>2</sub>	200	8 <sup>3</sup> <sub>8</sub>	8	+ 1 <sup>1</sup> <sub>4</sub>	600
American Airlines	13 <sup>1</sup> <sub>4</sub>	11 <sup>3</sup> <sub>4</sub>	- 1 <sup>3</sup> <sub>4</sub>	1,300	12 <sup>1</sup> <sub>8</sub>	11 <sup>1</sup> <sub>4</sub>	+ 9 <sub>8</sub>	300	13 <sup>3</sup> <sub>4</sub>	12 <sup>3</sup> <sub>4</sub>	+ 1 <sup>5</sup> <sub>8</sub>	2,300
Aviation & Transp.	1 <sup>5</sup> <sub>8</sub>	1 <sup>1</sup> <sub>2</sub>	+ 1 <sup>1</sup> <sub>4</sub>	1,000	1 <sup>5</sup> <sub>8</sub>	1 <sup>1</sup> <sub>2</sub>	....	500	1 <sup>3</sup> <sub>4</sub>	1 <sup>5</sup> <sub>8</sub>	+ 1 <sub>8</sub>	1,000
Beech Aircraft	...	...	....	...	1 <sup>1</sup> <sub>2</sub>	1 <sup>1</sup> <sub>2</sub>	+ 1 <sub>4</sub>	100	1 <sup>1</sup> <sub>2</sub>	1 <sup>1</sup> <sub>2</sub>	....	300
Bell Aircraft	14 <sup>7</sup> <sub>8</sub>	13	+ 1 <sub>8</sub>	4,200	13 <sup>5</sup> <sub>8</sub>	13 <sup>5</sup> <sub>8</sub>	+ 1 <sub>2</sub>	100	14 <sup>5</sup> <sub>8</sub>	13 <sup>1</sup> <sub>2</sub>	+ 3 <sub>8</sub>	1,800
Bellanca Aircraft	3 <sup>5</sup> <sub>8</sub>	3 <sup>1</sup> <sub>2</sub>	- 1 <sub>8</sub>	700	3 <sup>1</sup> <sub>4</sub>	3 <sup>1</sup> <sub>8</sub>	- 1 <sub>4</sub>	300	3 <sup>5</sup> <sub>8</sub>	3 <sup>1</sup> <sub>8</sub>	+ 3 <sub>8</sub>	400
Breeze Corps.	5 <sup>1</sup> <sub>8</sub>	5	- 1 <sub>8</sub>	200	4 <sup>3</sup> <sub>4</sub>	4 <sup>1</sup> <sub>2</sub>	- 1 <sub>2</sub>	400	4 <sup>3</sup> <sub>4</sub>	4 <sup>1</sup> <sub>2</sub>	- 1 <sub>8</sub>	400
Brewster Aero	5 <sup>3</sup> <sub>4</sub>	4 <sup>1</sup> <sub>2</sub>	+ 7 <sub>8</sub>	11,000	6 <sup>1</sup> <sub>8</sub>	5 <sup>5</sup> <sub>8</sub>	+ 1 <sub>4</sub>	7,800	7	6	+ 1 <sub>8</sub>	18,000
Fairchild Aviation	37 <sub>8</sub>	33 <sub>8</sub>	- 1 <sup>1</sup> <sub>2</sub>	900	3 <sup>5</sup> <sub>8</sub>	3 <sup>1</sup> <sub>4</sub>	+ 1 <sub>4</sub>	400	37 <sub>8</sub>	33 <sub>8</sub>	+ 1 <sub>4</sub>	500
Grumman Aircraft Eng.	8 <sup>1</sup> <sub>4</sub>	8 <sup>1</sup> <sub>4</sub>	....	100	8 <sup>1</sup> <sub>4</sub>	8 <sup>1</sup> <sub>4</sub>	+ 1 <sup>1</sup> <sub>2</sub>	600	10 <sup>3</sup> <sub>8</sub>	8 <sup>1</sup> <sub>2</sub>	+ 1 <sup>1</sup> <sub>4</sub>	4,000
Irving Air Chute Eng.	9 <sup>7</sup> <sub>8</sub>	8 <sup>5</sup> <sub>8</sub>	- 8 <sub>8</sub>	600	10	8 <sup>1</sup> <sub>2</sub>	....	600	10 <sup>1</sup> <sub>8</sub>	10	+ 1 <sub>8</sub>	600
Lockheed Aircraft	13 <sup>1</sup> <sub>2</sub>	12 <sup>1</sup> <sub>4</sub>	- 1	13,200	10	9	+ 3 <sub>4</sub>	6,400	13 <sup>1</sup> <sub>8</sub>	10	+ 2 <sup>3</sup> <sub>8</sub>	40,500
Penn. American Airways	4 <sup>7</sup> <sub>8</sub>	4 <sup>1</sup> <sub>2</sub>	- 1 <sup>1</sup> <sub>2</sub>	2,800	4 <sup>1</sup> <sub>2</sub>	4 <sup>1</sup> <sub>2</sub>	....	200	5	5	+ 1 <sub>2</sub>	100
Penn. Central Airlines	2 <sup>3</sup> <sub>4</sub>	2 <sup>3</sup> <sub>8</sub>	- 3 <sub>8</sub>	1,500	2 <sup>3</sup> <sub>4</sub>	2 <sup>3</sup> <sub>8</sub>	....	800	2 <sup>1</sup> <sub>2</sub>	2 <sup>1</sup> <sub>8</sub>	+ 1 <sub>8</sub>	4,000
Seversky Aircraft	2 <sup>1</sup> <sub>8</sub>	2	- 1 <sub>4</sub>	300	1 <sup>7</sup> <sub>8</sub>	1 <sup>7</sup> <sub>8</sub>	- 1 <sub>8</sub>	100	...	...	....	...
Waco Aircraft	2 <sup>3</sup> <sub>8</sub>	2	- 3 <sub>8</sub>	1,700	...	...	....	...	2 <sup>1</sup> <sub>4</sub>	2 <sup>1</sup> <sub>8</sub>	+ 1 <sub>4</sub>	500
Western Air Express	...	...	....	...	...	...	....	...	...	...	....	...



# The Birdmen's Perch

**LIARS ATTENTION!** We believe that every honest, law-abiding citizen has a secret conviction that he alone can spin a taller story than anybody within listening distance. Opportunity knocks! The Whopper Club invites you to let off steam on the marvels of Gulf Aviation Gasoline—reprints the best every month—and sends the author a specially printed certificate of membership! Forward whoppers to:

MAJOR AL WILLIAMS, alias "Tattered Wing-Tips," Mgr., Gulf Aviation Products, Gulf Bldg., Pittsburgh, Pa.

## FOR PUZZLERS ONLY

Dear Tattered Wing-Tips: How about catching some of your puzzle artists and mathematicians on this one:

Two planes start at the same time at the same point, and race round-trip to a distant point. If the air were still, the faster plane would have twice the speed of the slower plane. Actually, the faster one reaches the distant point, turns, and is  $\frac{1}{2}$  the way home again before the slower plane passes, still on the way out. What is the velocity and direction of the wind?

—C. L., Brooklyn

(T.W.T. will check your solution for you. Just mail it in!)

## VENGEANCE DEPT.



Dear T.W.T. Keep up the good work. The Problems have my physics teacher on the run. I'm getting even for the last two tests he gave.

—Paul Gooderum

## "SAFEST" AWARDS TOP RECORD STORIES

There are some mighty fine stories buried in the recent announcement of awards of the National Safety Council.

These certificates of merit for "Outstanding Contributions to Safe Air Travel" went, among others, to the Eastern Air Lines and to the Pennsylvania Central Airlines.

## Birthday

April 27th happened to be P.C.A.'s birthday. And on it they celebrated, not merely a single year without fatalities, but 11



"She'd have soloed on to heaven  
Up among the stars so white . . ."

solid years, since they began to serve the public, without ever a single fatal accident to a passenger or a member of a crew!

Extra credit was due to Eastern Air Lines, too, for this year's award to Eastern followed their previous year's record of topping all "bests" for that period.

## A Matter of Pride

Gulf takes its hat off and bows all credit to these two companies. But we're prouder than punch that Pennsylvania Central Airlines has been using Gulf Aviation Gasoline exclusively, for many years—and that Eastern Air Line's record was made with both Gulf Gas and Gulf Airline Oil. (Since January, both are 100% Gulf Gas and Oil!)

## Eddie Rickenbacker

In signing off we want to wish both lines the best of luck—especially to Capt. Eddie Rickenbacker and his associates who have just taken over Eastern Air Lines.

—EDITOR

## WHOPPER CLUB

The Whopper Club's diploma for the month goes to Charles E. Kerr, his whopper having been deemed most worthy of reproduction on this page. He takes issue with Dorothy Tibert's whopper, wherein "grandma" got rubbed with Gulf Aviation Gasoline instead of liniment (she soloed about the house until she ended up in broken china, under the bed. Remember?)

## THIS MONTH'S WHOPPER

Ah! Miss Tibert, what a whopper  
That you wrote at Aroostook,  
Telling us of grandma's cropper  
And her aeronautic fluke—  
How she soloed to the ceiling  
Through the room and round about,  
How she sailed back to her boudoir  
Absolutely cured of gout!

All because Gulf Aviation  
You did rub on every joint . . .  
Let me tell you, dear Miss Doty,  
That I think you missed a point!  
Had her tanks been filled with Gulf Gas  
As she flew on out the door,  
She'd have shook her tail-skid at you  
As you turned to see her soar!

She'd have made no chinese landing,  
She'd had power to spare galore.  
She'd have not received your panning  
'Bout the china on the floor.  
She'd have soloed on to heaven  
Up among the stars so white,  
And to shame she'd put the swallow  
And the eagle in their flight!

As it was, she made a landing  
On the floor, in broken glass—  
Proving that it wasn't GULF—but  
Just some ORDINARY gas!

—C. E. Kerr, Richmond, Virginia

Gulf Oil Corporation and Gulf Refining Company . . . makers of



**GULF AVIATION PRODUCTS**